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PUBLICATIONS
OF THE
AMERICAN ECONOMIC ASSOCIATION

THIRD SERIES.
VOL. VI, No. 1.

ISSUED QUARTERLY.
PRICE, \$4.00 PER YEAR.

PAPERS AND PROCEEDINGS

OF THE
SEVENTEENTH ANNUAL MEETING

PART I

CHICAGO, ILL.

DECEMBER 28-30

FEBRUARY, 1905

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PRICE IN PAPER, ONE DOLLAR.

AMERICAN ECONOMIC ASSOCIATION

Organized at Saratoga, September 9, 1885.

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Inquiries and other communications regarding membership, subscriptions, meetings, and the general affairs of the Association should be addressed to the Secretary of the American Economic Association, Cornell University, Ithaca, N. Y. Orders for publications should be addressed to The Macmillan Co., 66 Fifth Avenue, New York.

* Deceased.

PUBLICATIONS
OF THE
AMERICAN
ECONOMIC ASSOCIATION

THIRD SERIES, VOLUME VI

1905

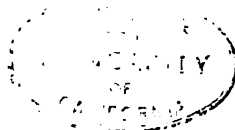


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ERRATA TO NO. 2, VOL. VI.

Page 231, line 13: for "elder men" read "elderly men."

Page 231, line 14: for "passed" read "past."

Page 231, line 17: for "it does not allow them" read "it does allow them."

Page 231, line 18: for "too of them" read "too many of them."

Page 232, line 2 from bottom: for "force" read "form."

Page 234 line 5: for "the buying stock" read "buying the stock."

Page 235, line 2 from bottom: for "the right to restrict membership" read
"the right to restrict the right of membership."

Page 236, line 17: for "implacable contract" read "irreparable contract."

AMERICAN ECONOMIC ASSOCIATION.

The American Economic Association is an organization composed of persons interested in the study of political economy or the economic phases of political and social questions. As may be seen by examining the list of members and subscribers printed in this volume, not only are all universities and most prominent colleges in the country represented in the Association by their teachers of political economy and related subjects, but even a larger number of members come from those interested as business men, journalists, lawyers or politicians in the theories of political economy or, more often, in their applications to social life. There are further nearly two hundred subscribers, including the most important libraries of this country. The Association has besides a growing representation in foreign countries.

The first two meetings of the Economic Association in 1885 and 1887, and the meetings of 1897, 1898, 1900, 1901, 1902, 1903, and 1904, were at the same place as those of the American Historical Association. Joint sessions and less formal gatherings of the members of the two Associations were thus held. In 1905 the meeting will be held in Baltimore and Washington. The annual meetings give opportunity for social intercourse; they contribute to create and cement acquaintanceship and friendship between teachers of economics and cognate subjects in different institutions, as well as to bring into touch with each other students and business men interested in the social and economic problems of the day. The meetings aim to counteract any tend-

ency to particularism which the geographical separation and the diverse interests might be deemed to foster.

The Publications of the Association, a complete list of which is printed at the end of this volume, were begun in March, 1886. The first series of eleven volumes was completed by a general index in 1897. The second series, comprising two volumes, was published in 1897-99, and in addition thereto the Association issued, during 1896-99, four volumes of *Economic Studies*. In 1900, a third series of quarterly Publications was begun with the *Papers and Proceedings of the Twelfth Annual Meeting*, and has been continued since with ample amount and variety of matter. It is intended to add to these quarterly numbers, from time to time, such monographic supplements as the condition of the treasury and the supply of suitable manuscript may make possible.

The American Economic Association is the organ of no party, sect or institution. It has no creed. Persons of all shades of economic opinion are found among its members, and widely different views are given a hearing in its annual meetings and through its publications.

The officers of the Association and the contributors to its publications receive no pay for their services. Its entire receipts are expended in printing and circulating the publications and in the slight expenses attendant upon the annual meetings. Any member, therefore, may regard his annual dues either as a subscription to an economic publication, a payment for membership in a scientific association, or a contribution to a publication fund for aiding the publication of valuable manuscript that might not be accepted by a publishing house, governed primarily by motives of profit, and that could not be published by the writer without incurring too heavy a burden of expense.

CONSTITUTION

ARTICLE I.

NAME.

This Society shall be known as the AMERICAN ECONOMIC ASSOCIATION.

ARTICLE II.

OBJECTS.

1. The encouragement of economic research, especially the historical and statistical study of the actual conditions of industrial life.
2. The publication of economic monographs.
3. The encouragement of perfect freedom of economic discussion. The Association as such, will take no partisan attitude, nor will it commit its members to any position on practical economic questions.
4. The establishment of a bureau of information designed to aid members in their economic studies.

ARTICLE III.

MEMBERSHIP.

Any person may become a member of this Association by paying three dollars, and after the first year may continue a member by paying an annual fee of three dollars. On payment of fifty dollars any person may become a life member, exempt from annual dues.¹

ARTICLE IV.

HONORARY MEMBERS.

The Council may elect foreign economists of distinction not exceeding twenty-five in number, honorary members of the Association. Each honorary member shall be entitled to receive all reports and publications of the Association.

¹NOTE—Each member receives all reports and publications of the Association.

ARTICLE V.**OFFICERS.**

The officers of the society shall consist of a President, three Vice-Presidents, a Secretary, a Treasurer, a Publication Committee, and a Council.

ARTICLE VI.**COUNCIL.**

1. The Council shall consist of an indefinite number of members of the society, chosen, with the exception of the original members, for three years. It shall have power to fill all vacancies in its membership, and may add to its number.

2. It shall elect the President, Vice-Presidents, Secretary, and Treasurer; the President, the Secretary, the Treasurer, the Chairman of the Publication Committee, and the ex-Presidents, together with three other members to be elected by the Council, shall constitute an Executive Committee with such powers as the Council may entrust to it; provided, that a quorum shall consist of four of the seven elected officers; and provided further that the offices of Secretary and of Treasurer may be filled by one person, and that the offices of Vice-President and of elected member of the Executive Committee may be filled by one person.

3. The Council shall organize itself into a number of standing committees upon the various lines of research undertaken. These committees shall prepare reports from time to time upon such subjects relating to their respective departments as they may select, or as may be referred to them by the Council. These reports shall be presented to the Council at its regular or special meetings and be open to discussion. All papers offered to

the society shall be referred to the appropriate committees before being read in Council.

4. The Council shall have charge of the general interests of the society, and shall have power to call meetings and determine what reports, papers, or discussions are to be printed, and may adopt any rules or regulations for the conduct of its business not inconsistent with this constitution.

5. The Council shall elect a Committee on Publications, which shall consist of six members, so classed that after the first election the term of two members shall expire each year. This committee shall have charge of and responsibility for the scientific publications of the Association.

ARTICLE VII.

AMENDMENTS.

Amendments, after having been approved by a majority of the Council, may be adopted by a majority vote of the members present at any regular meeting of the Association.

BY-LAWS.

1. The President of the Association, who shall be *ex-officio* a member of the Council, shall preside at all meetings of the Council and Association, and perform such other duties as may be assigned to him by the Council. In case of inability to perform his duties, they shall devolve upon the Vice-Presidents in the order of their election, upon the Secretary and Treasurer, and upon the Chairmen of the Standing Committees, in the order in which the committees are mentioned in the list.

2. The Secretary shall keep the records of the Association, and perform such other duties as the Council may assign to him.

3. The Treasurer shall receive and have the custody of the funds of the Association, subject to the rules of the Council.

4. The following Standing Committees shall be organized :

- (1) On Labor.
- (2) On Transportation.
- (3) On Trade.
- (4) On Public Finance.
- (5) On Industrial and Technical Education.
- (6) On Exchange.
- (7) On General Questions of Economic Theory.
- (8) On Statistics.
- (9) On Teaching Political Economy.

The Executive Committee may appoint such special committees as it may deem best.

5. At any meeting called by the general summons of the President five members shall constitute a quorum.

6. Papers offered for the consideration of the Council shall be referred by the Secretary, each to its appropriate committee.

7. In order to encourage economic research, the Association proposes to render pecuniary assistance in the prosecution of the same, and to offer prizes for the best monographs upon selected topics. It stands ready to accept and administer any fund placed at its disposal for either purpose.

8. The Executive Committee shall have power at any time to add new members to the Council.

9. The Executive Committee shall assign all members of the Council to one of the Standing Committees, and shall appoint the Chairmen of the Committees.

10. It shall be the duty of the Chairmen of the respective Committees to organize and direct the work of the same, under the general control of the Council.

FORMER PRESIDENTS

- | | |
|--|--|
| <p>*FRANCIS A. WALKER,
Massachusetts Inst. of Technology.</p> <p>*CHARLES F. DUNBAR,
Harvard University.</p> <p>JOHN B. CLARK,
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University of Wisconsin.</p> <p>EDWIN R. A. SELIGMAN,
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HENRY B. GARDNER,
Brown University.

BALTHASAR H. MEYER,
University of Wisconsin.

* Deceased.

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ALLYN A. YOUNG, Dartmouth College.

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 CARROLL D. WRIGHT, U. S. Department of Labor.
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MINUTES OF THE COUNCIL MEETING

The Council met Wednesday, December 28th, 1904, at 11:50 A. M., at the Reynolds Club, in the building of the Chicago University. The reading of the minutes of the previous meeting, which had been published in the Proceedings, was passed. The secretary-treasurer read his annual reports as follow :

REPORT OF THE SECRETARY TO THE COUNCIL OF THE AMERICAN ECONOMIC ASSOCIATION

DECEMBER 28, 1904

Two meetings of the Executive Committee have been held during the year. At the first meeting held April 30th in New York, the committee considered the subjects of the arrangements and program for the next meeting, and of the publications, and authorized the employment of an assistant secretary at a salary of \$500 for the year. Mr. Albert C. Muhse is now filling this position.

At the second meeting held November 26th at New York were discussed other questions pertaining to the coming meeting, and the following resolution was ordered reported to the Council :

"Resolved, That under the authority granted by the Council at the New Orleans meeting in December, 1903, the Executive Committee extend an invitation to the Councils of the American Historical Association and the American Political Science Association to join with the American Economic Association in forming a permanent joint committee on time and place of meeting, to be composed of two delegates from each of the three Associations.

"Resolved, That if this joint committee be formed, the permanent sub-committee representing the Executive

Committee of the American Economic Association be composed of the President, and of one other member of the Executive Committee to be appointed by him."

The publication policy was taken under consideration, and the chairman of the Publication Committee was requested to make inquiries looking toward a report to the Council.

Three committees of the Council are now outstanding—the Committee on Municipal Accounting and Finance, Frederick A. Cleveland, Chairman; the Committee on Index Numbers, Carl C. Plehn, Chairman; and the Committee on the Economic Position of the Negro, Walter F. Willcox, Chairman. The last named Committee has put into the hands of the Secretary a report to be presented to the Council. (See Index for Report.)

At the date of this report there are 1029 members, this being an increase of 35 over the 994 reported to the Council a year ago. During the present year 9 members have died, 45 have resigned, 30 were dropped for non-payment of dues, the total loss of members being 84 and of subscribers 4. Four subscribers and 119 new members have been added.

The Publication Committee has continued the unusual record which it made a year ago. The publications have been issued regularly, only the first number containing the proceedings of the last meeting being delayed beyond the month in which it was dated. The total number of pages published this year is 904. The Treasurer's account shows a balance of cash on hand, \$3560.30, an increase of \$520.20. The Association is free from debt with the exception of some minor bills of recent date.

Respectfully submitted,

FRANK A. FETTER.



TREASURER'S REPORT

FRANK A. FETTER, Treasurer.

*In account with the American Economic Association
for the year ending December 22, 1904.**Debits.*

Cash on hand at date of last report.....	\$3,040 10
Sales and subscriptions—	
The Macmillan Co.....	\$906 70
Secretary's office.....	265 41 \$1,172 11
Reprints.....	49 47
Life membership.....	50 00
Annual dues.....	2,340 00
Interest	52 50

Credits.

Expense of publications.....	\$2,131 07
Expense sixteenth annual meeting.....	91 99
Sec. and Treas. office expenditure.....	
Clerical help.....	\$608 03
Stationery, stamps, and miscel- laneous expenses.....	312 79 920 82
Balance in cash	3,560 30
	<hr/>
	\$6,704 18 \$6,704 18

The President appointed as an Auditing Committee Messrs. Adna F. Weber and Frank R. Rutter.

The following new members of the Council were nominated and unanimously elected: E. F. Gay, Harvard; J. Laurence Laughlin, Chicago; S. J. McLean, Stanford; H. C. Taylor, Madison; A. P. Winston, St. Louis.

A report signed by all the members of the Committee on the Economic Position of the American Negro was accepted and ordered to be printed in the Proceedings.

The Committee on Index Numbers, and on Financial Accounting, reported progress and were continued.

The report of the Publication Committee, which was signed by all the members, was read. The Council voted that the report be received, placed on file, and

printed. It was moved by Mr. Ripley that the discussion of the report be deferred until the Committee was ready to present the further report, which it asked the privilege of doing at a later meeting.

The following Nominating Committee was appointed : Henry C. Adams, Chairman ; R. T. Ely, W. C. Ford, John Cummings, A. P. Andrew.

The following Committee on Resolutions was appointed : W. A. Scott, H. B. Gardner, W. Z. Ripley.

The Council adjourned at 12:20 to meet Thursday evening at 8 o'clock.

The Council met Thursday, December 29, 1904, at 8:30 p. m. in the Reynolds Club House, President Tausig in the chair.

H. B. Gardner reported on behalf of the Committee on Time and Place that the Association meet in Baltimore in 1905, with the expectation that the meeting be held in Providence in 1906, and moved that the meeting at Baltimore be now authorized. Carried.

It was moved by Irving Fisher that a joint meeting with the American Association for the Advancement of Science, which has a section on Social and Economic Science, be considered by the Executive Committee for the year following or later, and be reported to the next meeting of the Council. Carried.

H. B. Gardner reported from the Executive Committee a resolution that the committee take under advisement the amendment of the constitution in a manner involving the abolition of the Council. Carried.

On behalf of the Nominating Committee, H. C. Adams, Chairman, reported the following officers for the year 1905: For President, F. W. Taussig; for Vice-Presidents, Horace White, Martin A. Knapp, Charles R. Crane; for Secretary-Treasurer, Frank A. Fetter; for

elected members of the Executive Committee, W. M. Daniels, H. B. Gardner, H. B. Meyer; for members of the Publication Committee, Jacob H. Hollander, Chairman, and A. W. Flux. On motion of H. R. Seager the Secretary was instructed to cast one ballot for these candidates.

A. F. Weber reported for the Auditing Committee that the financial balance had been verified and approved.

J. H. Hollander reported for the Publication Committee as follows: "*Resolved*, Whereas in its present publication activities, the Association fails to realize its maximum usefulness, either scientific or practical; that the path to such usefulness lies in the publication of an Association Journal, aided in so far as possible by financial subventions and guarantees; that the Executive Committee be authorized to proceed with the establishment of such a Journal, supplementary to the monographic issues, through the agency of the Publication Committee or otherwise, provided that the requisite financial arrangements can be made."

An amendment by F. L. McVey to the effect that the plan be referred to the Executive Committee to report to the Council a year hence was withdrawn in favor of the following substitute, introduced by Theodore Marburg and accepted by J. H. Hollander: "*Resolved*, That it is the sense of this meeting that it is desirable that this Association establish a Journal." The motion was carried.

It was moved by Mr. Hollander that the Executive Committee be authorized to proceed through the Publication Committee or otherwise, to establish an economic journal in addition to the existing journals, provided that, in its judgment, such a measure is expe-

dient, and that the requisite financial arrangements can be made. Carried.

The Committee on Resolutions reported through the Chairman, W. A. Scott, as follows :

"Resolved, Whereas the success of the present session of the American Economic Association and the comfort of its members has been due in great part to the facilities placed at our disposal by the University of Chicago, Northwestern University, the Chicago Historical Society, the Quadrangle Club, University Club, Union League Club, and Chicago Women's Club,—that we extend our thanks to each of these organizations, and to those who have extended social courtesies to the Association, and that our Secretary be requested to convey this expression of our appreciation to their respective Presidents."

F. C. Howe introduced a series of resolutions favoring the investigation by the national government of certain economic movements, and on motion of Mr. Marburg, the resolutions were recommended to the Executive Committee with power to act.

The Council adjourned at 10:30.

THE SEVENTEENTH ANNUAL MEETING

The Seventeenth Annual Meeting of the American Economic Association was held at Chicago, December 28-30, 1904, under the auspices of the University of Chicago. The American Historical and the American Political Science associations met at the same time and place, and joint sessions were held with both organizations. The meeting was large and most successful.

The program as carried out was as follows :

PROGRAM

Wednesday, 10.30 A. M., December 28th.

JOINT SESSION WITH THE AMERICAN POLITICAL SCIENCE ASSOCIATION, AND THE AMERICAN HISTORICAL ASSOCIATION.

Leon Mandel Assembly Hall.

1. Address of Welcome by WILLIAM R. HARPER, President of the University of Chicago.
2. Presidential Address, The Work of the American Political Science Association, by FRANK J. GOODNOW, Columbia University, President of the American Political Science Association.

Wednesday, 12 M., December 28th.

MEETING OF THE COUNCIL.

Reynolds Club House.

Second Session—Wednesday, 8 P. M., December 28th.

JOINT SESSION WITH THE AMERICAN HISTORICAL ASSOCIATION.

Chicago Historical Society.

1. Presidential Address, The Present Position of the Doctrine of Free Trade, by FRANK W. TAUSSIG, Harvard University, President of the American Economic Association.
2. Presidential Address, The Treatment of History, by GOLDWIN SMITH, Toronto, President of the American Historical Association.

The Seventeenth Annual Meeting

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Third Session—Thursday, 10.30 A. M., December 29th.

THE THEORY OF MONEY.

Leon Mandel Assembly Hall.

1. The Theory of Price and some of its Applications. J. LAURENCE LAUGHLIN, University of Chicago.
2. The Influence of the Credit System on the Value of Money. DAVID KINLEY, University of Illinois.
3. Credit and the Value of Money. A. PIATT ANDREW, Harvard University.
4. Discussion by WILLIAM A. SCOTT, University of Wisconsin; IRVING FISHER, Yale University; THOMAS N. CARVER, Harvard University; HENRY R. SEAGER, Columbia University; J. LAURENCE LAUGHLIN, University of Chicago; HENRY B. GARDNER, Brown University; FREDERICK R. CLOW, Oshkosh, Wis.; DAVID KINLEY, University of Illinois.

Fourth Session—Thursday, 2.30 P. M., December 29th.

OPEN SHOP OR CLOSED SHOP?

Leon Mandel Assembly Hall.

1. Causes of the Union Shop Policy. JOHN R. COMMONS, University of Wisconsin.
2. The Issues of the Open and Closed Shop. JOHN GRAHAM BROOKS, President of the American Social Science Association.
3. An Employer's View. JOHN HIBBARD, President of the John Davis Co., Chicago, Ill.
4. The Open Shop versus Trades Unionism. THOMAS KIDD, General Secretary Amalgamated Woodworkers.
5. Discussion by EDWARD A. ROSS, University of Nebraska; TOWNER K. WEBSTER, Chicago, Ill.; GEORGE E. BARNETT, Johns Hopkins University.

Fifth Session—Friday, 10.30 A. M., December 30th.

JOINT SESSION WITH THE AMERICAN POLITICAL SCIENCE
ASSOCIATION.

CORPORATIONS AND RAILWAYS.

Reynolds Club.

1. Governmental Interference with Industrial Combinations. EDWARD B. WHITNEY, of New York.
2. The Regulation of Railway Rates. MARTIN A. KNAPP, Chairman of the Interstate Commerce Commission.

3. Discussion by EDWARD P. RIPLEY, President of the Atchison, Topeka & Santa Fé Railway System; JOHN H. GRAY, Northwestern University; W. Z. RIPLEY, Harvard University; H. P. NEWCOMB; F. B. THURBER, President U. S. Export Association; WILLIAM W. FOLWELL, Minneapolis; EDWARD P. RIPLEY, EDWARD B. WHITNEY, New York; HORACE WHITE.
4. Tendencies in the Law of Taxation of Railways. HENRY C. ADAMS, University of Michigan.
5. Discussion by WILLIAM W. BALDWIN, Land Commissioner of the Chicago, Burlington & Quincy Railway.

Sixth Session—Friday, 2.30 P. M., December 30th.

PREFERENTIAL TARIFFS AND RECIPROCITY.

Reynolds Club.

1. Preferential Tariffs as between Canada and Great Britain. ADAM SHORTT, Queen's University, Kingston, Canada.
2. The Argument for Preference. GEORGE E. FOSTER, sometime Minister of Finance, Toronto.
3. Do Reciprocally Preferential Tariffs tend toward Free Trade? A. W. FLUX, McGill University, Montreal.
4. Discussion by H. PARKER WILLIS, Washington and Lee University; GEORGE M. FISK, University of Illinois; S. W. J. MCLEAN, Leland Stanford University.

Seventh Session—Friday, 8 P. M., December 30th.

JOINT SESSION WITH THE AMERICAN HISTORICAL ASSOCIATION.
ECONOMIC HISTORY.

Northwestern University Building.

1. The Significance of the Enclosure Movement in England. EDWIN F. GAY, Harvard University.
2. The Projected Economic History of the United States. CARROLL D. WRIGHT, Clark University.
3. Discussion by JOHN B. MCMASTER, University of Pennsylvania; CHARLES H. HULL, Cornell University; JACOB H. HOLLANDER, Johns Hopkins University; HENRY R. SEAGER, Columbia University; CARROLL D. WRIGHT.

REPORT OF THE PUBLICATION COMMITTEE SUBMITTED
TO THE COUNCIL OF THE AMERICAN ECONOMIC
ASSOCIATION, AT THE SEVENTEENTH ANNUAL MEET-
ING HELD AT CHICAGO DECEMBER 28-30, 1904.

Your Committee begs respectfully to submit the following report :

During the calendar year now drawing to a close, there have been published and distributed among the membership of the Association four (4) monographic issues constituting Volume Five of the third series of Association Publications. It is noteworthy that for the first time in a number of years these monographs have been issued at regular scheduled intervals and the entire volume completed prior to the annual meeting. In quality the monographs compare favorably—it is believed—with earlier volumes, and the absence of time pressure has permitted more careful editorial revision than has heretofore been the case.

In addition to arranging for the regular series of monographs, the Publication Committee—acting under the instructions of the Council at the New Orleans meeting—prepared and issued as a supplement a list of dissertations in progress in American universities on January 1, 1904 in the fields of political economy, sociology, finance and related subjects. Unless instructions to the contrary are received, it is proposed by your Committee to publish this list, suitably revised, annually hereafter.

Acting under the further instructions of the Council to encourage the preparation of economic bibliographies, your Committee has arranged for the preparation of the first of such bibliographies, dealing with the special

subject of the theory of wages. It is expected that this compilation will be completed and issued during the coming year.

In regard to the second subject recommended for publication activity, viz.: "Economic Legislation,—your Committee has instituted certain inquiries and carried on some correspondence with a view to securing a person competent and willing to assume charge of the work. Here, too, it is hoped that the coming year will witness definite achievement.

In so far as the publication activities of the Association are confined essentially to present lines, your Committee also feels warranted in expressing some satisfaction with respect to the future outlook. The condition which for a number of years so seriously embarrassed us, viz.: inability to obtain monographic material suitable for publication has definitely passed. Of the three monographs which, in addition to the proceedings of the Annual Meeting, we should under ordinary circumstances publish in 1905—two, of very considerable merit, have already been accepted, and are now undergoing final revision and preparation for the press. It seems reasonable to suppose that this state of affairs will continue and even improve, and that although the monographic material submitted to your Committee in the future will not be very different in kind from that heretofore received, yet the larger field for choice and the more adequate time for editorial examination and revision will result in gradual improvement in degree. Similarly, in regard to the work more recently assigned to your Committee in the direction of Economic Bibliography and Economic Legislation. It is true that with the multiplication of institutional publications, monographic and serial, and the heightened activities

of public and private agencies of research, increasing difficulty may be experienced in finding properly qualified persons to undertake such laborious and unremunerative tasks. On the other hand, it is certain that in economic research, as elsewhere, activity begets activity, and that further, your Committee, relieved from the necessity of beating by-ways and hedges for available monographic material, is now able to devote greater energy and time to these new occasions.

There are certain further publication activities—kindred rather than distinct—of the propriety of which your Committee is convinced, and responsibility for which—if so instructed—it is prepared to assume. The first of these is an authoritative bibliography of the economic writings of the membership of the Association. The second is the translation and publication at intervals, of notable foreign contributors to economic literature—enduring in content or historic in time—such for example as Roscher's unobtainable and inaccessible *Zur Geschichte der Englischen Volkswirtschaftslehre*. The third is the occasional reprint of an historically interesting economic text, such for example as Frederick List's Letters on American Political Economy. It is suggested that such publications be issued as supplements to the regular series of monographs, at irregular intervals in accordance with the conditions of the Association's treasury and the judgment of the Executive Committee.

There remains to be discussed the perennial subject of a more radical extension of the Association's publication activities. Positive occasion for such discussion at this time is given by the instruction of the Council at the New Orleans meeting that the Publication Committee should submit in outline a plan of publication at the

present meeting, and by the further request of the Executive Committee at a meeting held in New York City on Nov. 26, 1904, that the Chairman of the Publication Committee make inquiry regarding the desirability and expediency of some plan of Association co-operation in publication with the *Quarterly Journal of Economics*. In accordance with the latter request, a circular letter of inquiry was addressed to twenty-two members of the Association, whose opinions would be likely most to influence the action of the Committee in presenting a report to the Council. This letter proposed a plan of co-operation in publication with the *Quarterly Journal of Economics* which should contemplate (1) the receipt of the *Journal* by each member of the Association, (2) the insertion of certain matter in each issue of the *Journal* in the nature of a department of personal notes and Association announcements, (3) Association representation in the conduct of the *Journal*. At this time of writing, answers have been received from eighteen out of the twenty-two persons addressed. The result of the correspondence is such as—in the opinion of your Committee—to render unprofitable any further discussion of the plan. As a project, it failed throughout to evoke any enthusiasm, and although a considerable number of the replies favored the plan—a limited number with cordiality—yet even here the sentiment seems to be acquiescence in a last resort rather than choice of a favored policy.

Under these circumstances, your Committee recommend that the Association continue to publish as heretofore, in addition to the Proceedings of the Annual Meeting, an annual series of economic monographs of improving quality, supplemented at irregular intervals

by such further publications as have been described above.

Your Committee further believe that in its present publication activities the Association fails to realize its maximum usefulness, either scientific or practical ; and that the path to such usefulness lies in the publication, supplementary to the monographic issues, of an Association journal aided in so far as possible by financial subventions and guarantees. Accordingly your Committee recommend as follows :

Resolved, Whereas in its present publication activities the Association fails to realize its maximum usefulness, either scientific or practical ; that the path to such usefulness lies in the publication of an Association Journal, aided in so far as possible by financial subventions and guarantees ; that the Executive Committee be authorized to proceed with the establishment of such a Journal, supplementary to the monographic issues, through the agency of the Publication Committee or otherwise, provided that the requisite financial arrangements can be made.

All of which is very respectfully submitted.

JACOB H. HOLLANDER,

Chairman of the Publication Committee.

ADDRESS OF WELCOME

WILLIAM R. HARPER,

President of the University of Chicago.

Mr. President, Ladies and Gentlemen :—It is a very pleasant duty that falls to my lot this morning. The West, if we may call Chicago west, has always extended the hand of welcome to those who come from the East. As history has shown, this was the natural thing to do. There have been times, perhaps, when the feeling between the east and the west was less cordial than it is to-day. When armies and those whom armies represented have come west, the west at times has been inclined to resist, but in the end the East has always conquered, and the flow of civilization has continued westward. There was never a time when the feeling existing between the East and the West was more cordial than it is to-day. We are bound together not only by rails of steel, but by common interests that affect every phase of modern life. I speak of you as eastern men and women because not often you hold your meetings at a point as far west as Chicago. But I realize that men have come to these meetings not only from the east, but as well from the south and the north-west and the far west. We appreciate the great honor you have shown us at this University in favoring us with your presence. We believe that your visit just at this time will have an important and significant influence upon the affairs of this great city and this Mississippi Valley, and we thank you that you have honored us in this conspicuous way.

As you look about upon our streets and upon our

buildings, will you kindly remember that every building in the City of Chicago has been erected within the lifetime of individuals still living here? When you study the institutions of this city, will you kindly remember that practically everything in the way of institutional life has come within a quarter of a century, and that men are making an effort to accomplish within that brief period what other cities have perhaps accomplished in a century or more of time?

The three societies which meet together at this time and place represent three interests of great concern to the people of our country. We are just awakening to the fact that as a people we have been making history, and entering into that world-life to which every civilized nation makes contribution. The crises through which we have passed in recent times have been of such a character as to convince us as a people that we need to think more carefully in respect to the theoretical side of our political doctrine. Never before in the history of this country have the men who occupy the chairs of Political Economy in our colleges and universities wielded so large an influence. Our bitter municipal experiences, as well as the new problems which democracy has forced upon us, show quite clearly that we have not put into practice the wisdom of the political scientist, even as far as that wisdom has been formulated. The whole situation is singularly open to suggestion and ripe for improvement. In these three fields of thought and activity which are by no means distinctly separated one from another, opportunity for new thought and new suggestion is unlimited. It is greatly to be desired that this series of meetings will furnish a real contribution which shall elevate the life and thought of

our beloved country, and that in these friendly gatherings many of us as individuals shall find new inspiration and help for the work that lies before us.

On behalf of the City of Chicago, and on behalf of the University, I bid you welcome, and express the hope that no meeting thus far held by the associations here represented shall have contributed more to the fundamental purpose of these organizations than that which now opens its sessions.

PAPERS AND DISCUSSIONS

THE PRESENT POSITION OF THE DOCTRINE OF FREE TRADE

PRESIDENTIAL ADDRESS BY FRANK W. TAUSSIG

Forty years ago, the doctrine of free trade seemed to be triumphant, alike in the judgments of thinkers and in the policy of the leading countries. The school of Adam Smith and Ricardo had swept the board in Great Britain, and its conclusions, as set forth in John Stuart Mill's *Principles*, were thought to represent the definitive outcome of economic inquiry. Among these conclusions, the one least open to doubt seemed to be that, between nations as between individuals, free exchange brought about the best adjustment of the forces of production; and international free trade was regarded as the one most potent means of increasing the efficiency of labor. In legislation, the triumph seemed to be no less assured. England, after a series of moves in the direction of lower duties, had at last taken the sudden plunge to free trade in the dramatic repeal of the corn laws in 1846. Not long after, France, by the commercial treaty of 1860 with England, had replaced the old regime of rigid protection and prohibition by a system of duties so moderate that the free trader might feel that his ideal, if not quite attained, yet could not be long delayed in complete realization. The treaty between France and England was soon followed by others of similar import between the various countries of Europe, spreading over all the Continent a net-work of reciprocal arrangements that greatly lowered the tariff barriers in the civilized world. In the United States a long period, from 1846 to 1861, had witnessed a marked relaxation of the protective system; and if the civil war had brought a return to high duties, this might be

ascribed to the financial exigencies of that crisis, and might reasonably be expected before long to give way once more to a moderate policy.

How different since then has been the course of events from what was confidently expected by the economists of 1860! Slowly but steadily the current has been reversed, and country after country has joined the protectionist ranks. The United States, so far from relaxing the high duties imposed during the civil war, has strengthened them and enlarged their range, and gradually built up a protective system the like of which was not dreamed of in earlier days. France, restive under the treaty regime of low duties, finally put an end to it in 1881, and then proceeded to build up once more a system of high protection. Germany took her decisive step in the same direction in 1879, and thereafter proceeded steadily to enlarge and elaborate her tariff barriers. Austria and Italy followed suit, and Russia has gone to the extreme in adopting protection. Even the old strongholds of free trade have become difficult to hold. Holland's latest tariff, while still disavowing deliberate protection, yet levies duties which, if ostensibly for financial yield, are inconsistent with a strict adherence to free trade. The leading English colonies, Canada and Australia, have ostentatiously abandoned that principle. England herself is in the throes of a discussion in which her policy of freedom, supposed to have been settled once for all, is attacked with vigor and effect; and who shall say what is to be the outcome of that discussion?

Not less striking is the change in temper among economic thinkers. The whole structure of economic theory is undergoing revision. Many of the doctrines of Adam Smith and Ricardo have no more than an his-

toric interest. It still remains to be seen, as to this larger discussion, just what the outcome will be in the reconstruction of economic teaching as a whole; but it is clear that, so far as the doctrine of free trade is concerned, enthusiasm has been supplanted by cautious weighing or open doubt. Half a century ago those German and French writers who advocated free trade were certain that the future was theirs: protection was the waning doctrine, and its advocates were hopelessly reactionary. At present, certainly in Germany and more or less in other countries, a large school has just the opposite feeling. Free trade would seem to be the waning doctrine. *Laissez-faire* and freedom have had their day, and the future belongs to the conscious direction of industry at the hands of the state. International free trade has no more sanctity or authority than any other part of the obsolete system of natural liberty, and the advantages or disadvantages of tariff restrictions are to be coolly weighed for each country by itself, in the light of specific experience.

In view of this unmistakable change in the general attitude, even the most convinced free-trader must feel called on to reconsider the question, and weigh once more the arguments for protection. Some such task I propose for myself to-night: not indeed the formidable one of going over the entire subject afresh, but that of passing in review some of the arguments most commonly heard, and more especially those of which most is heard in our own country.

First of all, something may be said as to those aspects of the controversy of which most is heard in popular discussion in this country. Here, as it happens, the situation is comparatively simple; for there is perhaps a nearer approach to a consensus of opinion on current

popular arguments regarding protection than on any subject in the wide field of economics. As to most of the familiar arguments for protection, either all the economists are hopelessly in the wrong, or else the protectionist reasoning is hopelessly bad.

The mercantilist view of international trade, exploded though it has been time and again, has a singularly tenacious hold. Even among the most intelligent writers in financial journals, the familiar attitude is that of rejoicing in a gain of exports, regretting a gain of imports: rejoicing in an inflow of specie, bewailing its outflow; so familiar that probably the immense majority of persons who have never been systematically trained in economics take this point of view as a matter of course. Now, in a country whose monetary system is top-heavy, the relation of imports to exports may not automatically adjust itself without causing trouble. But the difficulty in such case, if there be one, is in the circulating medium, and presents questions of monetary reform, not any problem as to the gain or loss from international trade. No doubt there are some other problems of real complexity in the relation of exports and imports. A country whose exports grow rapidly and are readily absorbed by foreign countries, may thereby secure its imports on more advantageous terms. This has probably been the situation of the United States, especially during the last thirty years. On the other hand, a country which depends on international trade for obtaining commodities essential for its economic well-being and not procurable at home, must look to its exports as the means whereby these essentials shall be secured; and such a country must have a watchful eye on the continuance and growth of its exports. This has doubtless been the situation of England during the last thirty years. But these are

aspects of the theory of international trade quite beyond the ken of those who expound the virtues of protection to the general public. Here the exports are not regarded as the means of buying the imports: the exports are good *per se*, the imports bad *per se*. We may apply to this sort of talk a well-known passage of Adam Smith's:

"Some of the best English writers upon commerce set out with observing that the wealth of a country consists, not in its gold and silver only, but in its lands, houses, and consumable goods of all sorts. In the course of their reasoning, however, the lands, houses, and consumable goods, seem to slip out of their memory; and the strain of their argument frequently supposes that all wealth consists in gold and silver, and that to multiply these metals is the great object of national industry and commerce."

So the every-day writers on foreign trade would admit at the outset that its only object is the same as that of all labor and trade: to increase the sum of enjoyable commodities, and to do so by getting the imports we consume, not by selling the exports we get rid of. But as their reasoning proceeds, the consumable commodities somehow slip out of their memory, and all their talk is of gaining by sales and of losing by purchase, of the great glories of swelling exports, and the ill omen or domestic industry from growing imports.

Other ancient fallacies have a no less tenacious hold. We hear it proclaimed *ad nauseam* that protected industries give the farmer a home market; as if there were created a new and additional market, and not a mere substitute for the foreign market. It is part of the same ancient fallacy that the farmer's "surplus" is talked of as if it must be so much waste unless legislation provided a market for it. We all know how Adam Smith, in the days when the theory of international

trade was in the making, accepted the notion of a surplus; we all know, too, how easy it was for later writers to refute Adam Smith out of his own mouth. We are constantly told that a tax on imports acts as a burden on foreigners, not on the domestic consumer; though here, as in other parts of the controversy, the proposition is more often an implied premise than an explicit conclusion. Not least, how incessant is the blatant assumption that all prosperity is due to the protective system, and that disaster must ensue from any mitigation of its rigor. With some of these arguments, no doubt a nice analysis would bring into view certain conditions under which a measure of plausibility, nay of real validity, attaches to them. Thus, there are conditions under which taxes on commodities are borne in part, occasionally even in whole, by the producer and not by the consumer. These are exceptional conditions, and they are as likely to appear under internal taxes as under customs duties. But such exceptions and qualifications, found for every social and economic principle by the discriminating thinker, are not among the subjects of every-day debate. There we find the simple fundamental principle ignored, and the baldest of errors repeated. No doubt it is inevitable, in the popular discussion of economic problems, that arguments of the crudest sort should come to the fore. But I confess to a sense of humiliation when our leading statesmen turn to reasoning easy of refutation by every youth who has had decent instruction in elementary economics.

I do not wish to linger on these commonplaces; yet, at the risk of being tedious, will turn for a moment to that phase of the controversy which for near half a century has been most conspicuous in our country—the effect of

protection on wages. For years and years it has been dinned into the ears of the American people that high wages are the result of protection, or at least dependent on protection; that the maintenance of a high standard of living depends on the barrier against competing laborers of lower price, and that the workingman has a special and peculiar interest in the system of high duties. And yet I apprehend that here, too, the judgment of the economists would be with virtual unanimity the other way. The general range of wages in the United States was not created by protection and is not dependent on protection. The common talk about the sacredness of protection as a means of uplifting the workingman is mere claptrap.

No doubt there would be some difference in the way in which the economists stated the grounds of this conclusion. The theory of wages is one of their debatable fields, and some points are still to be settled. But for the purposes of the present discussion, these differences would not be material. By and large it would be agreed all hands that the fundamental cause of high wages is large productiveness of labor, and that so long as such productiveness exists a large reward to workmen will follow. The higher range of wages in the United States is due to the country's rich natural resources, and to the energy and intelligence with which these have been utilized. It may be that in certain directions the utilization of its resources has in some degree been hastened or made more effective by protection,—of this more hereafter. It may be that in other directions this utilization has been retarded and lamed by protection. But in either case it is beyond doubt that, whether we had had in the past complete free trade or the most unqualified protection, production would have been more generous

in the United States than in European countries, and wages higher ; and it is no less certain that, whichever system we shall have in the future, we shall retain these same advantageous conditions.

But while the generally higher range of wages in the United States has nothing to do with protection, and probably not much to do with international free trade either, it does not follow that some among our laborers may not be dependent on the tariff barriers for their present wages in their present occupations. So far as the industries in which they are employed are really dependent on protection, the high wages paid in these particular cases are also dependent on protection. Looking at the dominant and normal conditions of industry in this country, we find high money wages and at the same time low prices of goods. Labor is efficient and goods are produced abundantly ; therefore, though the goods are sold at low prices, the gross money yield is large, the money returns are high, and high money wages are paid. But in those industries in which labor is less efficient, and goods are not produced in abundance, the gross money yield can not be high unless competing products are kept out or handicapped. In this sense, and to this extent, the maintenance of high wages in some industries depends on the maintenance of protection.

To say this is to say that here, as in all cases of vested interests, whether of labor or of capital, serious problems present themselves to the legislator. The protectionists naturally exaggerate the extent to which industries are in fact dependent on this system, and indeed go to the absurd extreme of maintaining that all successful industry and all high wages depend on their panacea. The free-traders belittle it, and often fail to

see that in so doing they minimize also those consequences of protection which they think bad. The diversion of labor and capital to less productive channels—the ill effect which is the essence of the free-trade contention—is precisely in proportion to the range of industries in which the maintenance of high wages depends on protection. No doubt also the free-traders do not squarely face the difficulties of a transition to their system: the slowness with which capital and labor would have to be withdrawn from protected industries, and the prolonged period of unsettlement which would have to be undergone before final readjustment.

Before leaving this part of the controversy, I will note one other aspect of it,—one that touches our pressing social problems. The industries in which labor is efficient, output is large, and wages are high, are by no means solely the agricultural industries. A great range of manufactures are of this sort; and these are our most characteristic manufactures. They are the manufactures employing workmen who are alert, intelligent, and what is popularly called high-priced. They are the manufactures in which a larger output per unit of labor and capital comes from ingenious machinery, effective organization, efficient labor, nicely adjusted product. Side by side with these are others of a different type, in which the laborer is called on chiefly for the monotonous repetition of the simplest manual tasks, and in which even an ignorant man, or woman, or even child, can be easily taught the task. Here the temptation is inevitably to seek for cheap labor. The earth has been scoured to find docile, ignorant, pliable labor, which shall do for us our Helot's tasks. Inpouring immigrants by the million find work of this kind. They get wages which are lifted by the surrounding

economic forces somewhat above the level of similar wages in Europe, but are lifted by no means up to the full American range. They are in a class by themselves, cut off in large degree from the general influences of the country. Their children, indeed, commonly feel these influences. They go to the public schools, learn the American standards and ways, and struggle with more or less success to rise to a higher stratum. But this depletion of the lower ranks is more than made good by the increasing arrivals of new shoals of immigrants. Thus we have, perhaps not permanently, but as a continuing part of our present social system, a vast mass of human beings doing for low wages work that is dull, monotonous, and according to our standards ill-paid.

Now I am by no means disposed to assert that the protected industries are identical with the industries employing labor of this sort. Not a few of the protected industries call for labor of the alert and intelligent kind. Many industries which have nothing to do with protection call for the dull, weary, unskilled work. Such is the mining of anthracite coal, whose peculiar conditions have of late been so conspicuously brought into notice; such is the cotton manufacture in the South, where during the last twenty years a vein of this low-lying human material has been unexpectedly discovered and exploited. But a good share of the protected manufactures are in this class. Large parts of the textile manufactures in the Atlantic States belong here, and are in marked contrast,—to give one example,—to such an industry as the shoe manufacture. I cannot but believe that by increasing the opportunities for the utilization of labor of this sort the protective system has added to our social and political difficulties. The safe

absorption and remaking of these unskilled and uneducated masses is largely a question of degree. A certain amount we can make over; too many of them would swamp our institutions. No thinking man can view without concern the rapid increase in their numbers, or believe that it is for our social or moral advantage to add by legislative policy to the range of industries which create a demand for them.

I pass now to more difficult matters: to some phases of the controversy concerning which economists are much less in accord, and on which something is to be said on both sides. And here I will begin with two lines of reasoning that are not commonly considered together, but which seem to me to involve essentially the same question of principle. One of them is the argument against dumping; the other is the argument for the protection of agricultural products against the competition of new countries.

"Dumping" I take to mean the disposal of goods in foreign countries at less than normal price. It can take place, as a long-continued state of things, only where there is some diversion of industry from the usual conditions of competition. It may be the result of an export bounty, enabling goods to be sold in foreign countries at a lower price than at home. It may be the result of a monopoly or effective combination, which is trying to keep prices within a country above the competitive point. Such a combination may find that its whole output can not be disposed of at these prices, and may sell the surplus in a free market at anything it will fetch,—always provided it yields the minimum of what Professor Marshall happily calls "prime cost."

Now, if this sort of thing goes on indefinitely, I confess that I am unable to see why it can be thought a

source of loss to the dumped country ; unless, indeed we throw over all our accepted reasoning on international trade and take the crude protectionist view *in toto*. If one country chooses to present goods to another for less than cost ; or lets its industrial organization get into such condition that a monopoly can levy tribute at home, and is then enabled, or compelled by its own interests, to present foreign consumers with goods for less than cost,—why should the second country object ? Is not the consequence precisely the same, so far as that other country is concerned, as if the cost of the goods had been lowered by improvements in production or transportation, or by any method whatever ? Unless there is something harmful *per se* in cheap supply from foreign parts, why is this kind of cheap supply to be condemned ?

The answer to this question seems to me to depend on the qualification stated above—if *this sort of thing goes on indefinitely*. Suppose it goes on for a considerable time, and yet is sure to cease sooner or later. There would then be a displacement of industry in the dumped country, with its inevitable difficulties for labor and capital ; yet later, when the abnormal conditions ceased, a return of labor and capital to their former occupations, again with all the difficulties of transition. It is the temporary character of dumping that gives valid ground for trying to check it.

A striking case of this sort has always seemed to me to be that of the European export bounties on sugar, which for so long a period caused continental sugar to be dumped in Great Britain. These bounties were not established of set purpose. They grew unexpectedly, in the leading countries, out of a clumsy system of internal taxation. They imposed heavy burdens on the

exchequer, as well as on the domestic consumer, in the bounty-giving countries; and they were upheld by a senseless spirit of international jealousy. Repeated attempts to get rid of them by international conferences showed that the cheap supply to the British consumer, and the embarrassment of the West Indian planter and the British refiner, rested not on the solid basis of permanently improved production, but on the uncertain support of troublesome legislation. It might well be argued that these conditions would come to end sooner or later. The longer the end was postponed, the worse was the present dislocation of industry and the more difficult the eventual return to a settled state of things. No doubt these were not the only considerations that in fact led Great Britain, the one great dumping-ground, to serve notice that she would impose import duties equal to the bounties, unless these were stopped. Perhaps this decisive step would have been taken even if it had appeared that the bounties were to continue as a permanent factor in the sugar trade. But it is in their probably temporary character that the sober economist finds justification for the policy that led to their abolition. At all events there is tenable ground for arguing that Great Britain, in causing them to be stamped out, acted not only in the interest of the much-abused consumers of sugar on the Continent, but in the permanent interests of her own industrial organization.

The other familiar case of dumping is that of the monopoly. Here, too, it may be maintained with much show of reason that the diversion from the normal conditions of industry is but temporary. Can any country be persuaded in the long run that it is for its advantage to support or aid, by protective duties, or by any other method, a monopoly which mulcts the domestic con-

sumer and thereby is enabled to make presents to the foreigner? Yet the strength of vested interests, the curious conservatism of party feeling, persistent sophistry about giving employment to labor and turning the wheels of industry, may keep the practice going for a long period. Any measures that would bring it to an early end should be welcome alike for the country that dumps and for that into which there is dumping.¹

I turn now to the other phase of this same question. The competition of the United States and of other newly opened countries has depressed the prices of various articles of food in Europe; has restricted, or threatened to restrict, the volume of agricultural production; and has caused an increasing drift of population to manufacturing industries. But these conditions, it is maintained, are but temporary. The new countries will not remain new. Their population grows rapidly, and their fresh lands are fast being absorbed. It is to be expected that sooner or later their numbers will be increased, and their own food supply increasingly drawn on, until they have no food for export. The countries to which this food supply had been sent, and whose industries had been adjusted on that basis, will find inevitable readjustment to

¹ No doubt in weighing the advisability of such measures, it would be necessary, and at the same time extremely difficult, to ascertain whether the dumped article really was exported at an abnormally low price. It is familiar knowledge that the Steel Corporation, for example, is selling some articles for export at less than the domestic price. But it is quite possible that the export price, while less than the domestic price, is not really below the level of normal cost. So much the worse, doubtless, for the consumer at home; but this is not a matter that concerns the foreigner, who buys the steel at no more and no less than a reasonable figure. It seems to be at least doubtful whether the foreign sales are in fact likely to be made for any considerable time at a price below the long-run cost of production. If not, the question which presents itself is the ordinary one of protection, not the peculiar one of a temporary dislocation of industry.

the old basis. First a large part of their population is transferred from agricultural to manufacturing industries, and then must be transferred back to agriculture again. Each process of transition is necessarily slow and possibly painful, and the suffering and losses outweigh the temporary benefit during the comparatively brief period of cheaper food supply. Is it not wiser to protect agriculture for awhile, and keep industry in its even and permanent course?

Here again the answer turns on the temporary nature of the situation. If it were clear that the cheaper food supplies would cease to be available after ten years, or twenty years, there would seem to be good grounds for resisting this American invasion. The longer the period over which the new conditions are likely to last, and the more uncertain their end or the stages by which their end will be reached, the weaker is the case for resistance. Now, all the indications are that the relations between new countries and old countries, as they have developed during the last half-century, will endure for a long period,—a period not to be measured by years or decades, perhaps not by generations. Many have been the books and pamphlets published during the last twenty years, foretelling that the end was near, and that the opening of new sources of supply had ceased. Yet the building of new railways and the general advance in transportation, as well as the discovery of regions not before thought available, have accentuated the present situation of the modern world, and have postponed to an indefinite future the predicted reaction. To attempt now to make provision for such an indefinite future is at the least very doubtful policy. What will be the relation, a century hence, between the old countries and the countries now new; what will then be the

sources of food supply for the civilized world ; what will be the process by which the old countries fall back again to their own resources,—if indeed they do fall back,—these are questions which the statesmen of the present day had best leave to the distant successors who may eventually have to deal with them.

A curious argument, connected with this set of considerations, has been advanced by one of the most distinguished economists of our time. A revival of the more extreme phase of the Malthusian reasoning, it looks to the influence of more abundant food supplies on the growth of population and the standard of living. Briefly, the reasoning is that cheaper food will simply cause an increase of numbers, and a lowering of the standard of living. When food thereafter becomes dearer, either in occasional seasons of dearth or—as is supposed to be probable—as a permanent matter in the not distant future, there will be nothing to fall back on. The larger population which the temporary period of plenty had called out, will suffer the more when the conditions of limited supply return. This is just what Malthus maintained a century ago. But, it is also just what a century of economic and social history has disproved. I am by no means of the opinion that the century's history has disproved the general Malthusian theorem,—the tendency to pressure and the need of restraint. But the particular corollary as to the inexpediency of cheaper food seems to be quite untenable. The causes of restraint or lack of restraint in multiplication are much more complex than it assumes. Notable among them are the advance of education and intelligence, the nature of the industrial organization, the desire and opportunity to rise in the social scale, which Malthus himself believed to be the *vis medicatrix* of

the community. Where the conditions of intelligence and ambition are present, material well-being has a favorable effect of a cumulative kind: a fairly high standard of living, once set going, tends not only to maintain itself, but to rise. Something of a lift must be given before an independent upward movement can maintain itself. The general rise in the comfort of living which the leading countries have secured in the last half-century, and which has been due largely to cheaper supplies of food and materials from the new countries, has served to give the needed lift.

I turn now to that course of reasoning which has long been among the economists the most effective in favor of protection; the argument for protection to young industries. It goes by other names and uses other phrases. It is sometimes called educating or nurturing protection. In popular controversy, it takes the form of the contention that protection, while it may raise temporarily the prices of the goods protected, in the long run lowers them. Throughout, it rests on the assumption that a country does not secure without conscious effort or considerable sacrifice those industries which in the long run are most advantageous for it.

Let us consider first the probable range in the application of the principle. It is commonly stated to be applicable only to manufactured goods, not to raw materials,—including under the term “raw materials” most agricultural products. Such was the view of List, the German economist, who has given the most elaborate and perhaps the most effective statement of the argument. Indeed, it is only from this point of view that there is any strong distinction between duties on manufactures and those on raw materials. No doubt, something may be said, by way of special objection to

taxes on raw materials, that they accumulate as profits are heaped up on them in the successive stages through which the commodity passes before reaching the consumers' hands. But this makes only a difference of degree, and perhaps not a great difference of degree, between raw materials and most manufactures; whereas, so far as the young industries argument goes, there is a difference in kind. Nature has settled what sorts of raw materials a country is fitted to produce. No encouragement from protective duties, for example, can so stimulate the growth of forests in the United States as to bring us in the end cheaper timber. No such stimulus can cause the climate of the country to become better adapted for wool growing, or give it the peculiar advantages which the interior of Australia has for this form a pastoral industry; or make Louisiana as well fitted for growing cane sugar as Cuba.

Nevertheless, it must be admitted that, even so far as this special argument for protection is concerned, there may be sometimes as good reason for duties on raw materials as on manufactures. Mining operations usually involve an initial stage of experiment and uncertainty, and almost always call for a heavy investment of fixed capital. The history of the iron industry in the United States and Germany, and possibly that of the copper industry in the United States, suggest at least the possibility that a stage of artificial and expensive stimulus may be followed by an eventual attainment of developed and cheapened production. Agriculture seems to present such possibilities in less degree; pastoral industry still less; and forestry least of all.

Unlike most other parts of the controversy between free-trade and protection, the young industries arguments connects itself with few other questions of

economic theory, and is to be considered chiefly in the light of specific experience. The benefits of imports and exports, the relations of domestic and foreign industry, wages, foreign cheap labor, surplus products, over-production, dumping,—these topics at once spread over into the general field of economics. Not only do they thus enlarge, but they can be disposed of chiefly by that mode of general reasoning from comparatively simple premises which still remain the most valuable tool at the disposal of the economist. But whether protection to young industries will or will not have good effects, is simply a question of probability for the given case. Precisely the opposite result from protection has not infrequently been discovered or supposed to be discovered. It has been said that, so far from leading to improvements and eventual cheapening, it leads to the retention of antiquated and inefficient wages of production and so to continued enhancement of prices. There is good ground for believing that the long continued protective régime in France during the first half of the nineteenth century had ill results of this kind. One of our ardent free-traders, the late David A. Wells, repeatedly maintained that the same consequences had appeared in the United States. His conclusion may have been justified by what happened during the period of abnormal industrial conditions that followed the Civil War; yet I doubt whether the experience of the United States as a whole supports it. The truth is that either result may ensue. Among an active and enterprising people the diversion of industry into new channels may lead to progress, improvement, and eventual gain; whereas in a timid and stagnant people the stimulus of competition from abroad may be necessary to rouse them to their best ef-

forts. The problem of protection to young industries thus offers an especial field for the inductive and historical method in its stricter sense,—the patient investigation of particular cases, and the possible final construction of an edifice of truth, by the slow gathering of fragments of knowledge.

For the purpose of aiding legislation in our own day, however, investigation of this sort must be confined to modern experience; the experience, say, of the nineteenth century. Investigations as to earlier periods, as to the industrial regime of the Middle Ages, the system of Colbert, the early protective policy of Great Britain, the paternalism of the rulers of Brandenburg and Prussia, will teach us little for the problems of the present. The value and interest of such investigations are not to be denied. We have shed certain notions of the earlier economists as to the necessary harmfulness or futility of the conscious direction of industry, and know that we have still much to learn about the causes of progress in the past. But modern conditions differ radically from those preceding the nineteenth century, and have changed fundamentally in the last fifty years. Technical education has been so improved and diffused as to make immensely easier the adoption anywhere of a new process. All the means of communicating knowledge, from the printing press to the telegraph, serve to spread rapidly information about changes in the arts. Restrictions on the sale or export of machinery have disappeared. Capital is abundant, and is constantly and eagerly seeking fresh employment. There is no need of further enumeration; it is obvious that the conditions are very different from those that had to be faced by the undertaker of the seventeenth and eighteenth century, even of the first half of the nineteenth. Whatever we

learn of his troubles and obstacles can tell us little as to the extent to which his successor in modern times needs the prop of legislative aid in new ventures.

Looking now at modern experience in protection to young industries, what result do we find? The answer, alas, is not certain. Sometimes we seem to find a degree of success, sometimes of failure. The besetting difficulty of all purely inductive inquiry in the doings of man is ever present. We can not isolate causes. We can not apply protection to a country, and make sure that everything else remains unchanged. A protective duty may be followed by an increase of domestic production, by a new and independent industry, by an eventual benefit to the community in the way of cheaper commodities; but the question always will remain whether other causes have been at work, and whether the same result would not have ensued without the tariff in favor of the young industry.

Contrast the history of Germany and of France. For the whole period up to 1860, France had a restrictive regime of the greatest severity. Yet I have seen no evidence adduced that, during that period of rapid industrial advance in the world at large, any gain was secured by France in the way of successfully establishing an industry that was able to hold its own without aid. In Germany, on the other hand, the trend of opinion among competent observers seems to be that, at least during the second third of the century, the tariff policy of the Zollverein, though much more moderate than that of France during the same period, nurtured German manufacture to advantage. The establishment of free trade within Germany by this beneficent customs union opened great possibilities of internal growth, which were

more easily turned into realities by a period of shelter from foreign, especially English, competition. During the last third of the century, Germany's industrial growth has been one of the remarkable phenomena of our time; but it began under the moderate protectionist regime of the Zollverein, and, whether or no promoted also by the accentuated protection that began in 1879, has certainly been much affected by the other factors also, to some of which I shall presently refer. In the United States we find similarly conflicting evidence. Some researches of my own have led me to believe that, on the whole, the first growth of manufactures in this country, in the early years of the nineteenth century, was advantageously promoted by restrictions on competing imports. As we come nearer to the present time, the case in favor of protection becomes more and more doubtful. In the policy of extreme and all-embracing protection which has been gradually built up since the Civil War, it would have been surprising indeed if we had not scored a few hits. Where you send innumerable shots promiscuously in a given direction, some few of them are likely to hit the mark. But specific and unbiassed inquiry on those points is sadly needed, and offers a promising opportunity for scholarly investigation. It is obvious that there has been not only an enormous growth of manufacturing industry, but a great improvement in methods of production and a growing independence of foreign competition. How far this gain has been carried to the point which proves that the community is now better off than it would be if it had depended on foreign supply; and how far such a gain, further, may have been due to causes quite independent of encouragement in the way of protection,—these are questions which certainly can not be disposed

of without much painstaking and unbiased inquiry, and for which even such inquiry very likely would yield no clear-cut answer.

Our conclusions as to the general validity of the argument for protection to young industries thus have an uncertain ring. Yet it must be added that while such protection can not be proved useless, there is at least one striking phenomenon which proves it to be not indispensable. That phenomenon is found in our own country. Here we have seen, under a regime of the most absolute free trade, the gradual and steady growth of manufactures in communities that a few decades ago were exclusively agricultural. In our Southern states, the cotton manufacture has grown and prospered in face of the competition of the established industry of New England. It found in the South advantages of situation, and a labor supply which proved amenable to profitable exploitation. But these advantages could not be utilized without an initial period of experiment and uncertainty, during which the older industry had all the advantages against which protection is supposed to be necessary. Even more instructive is the transformation of the great Central region,—the states north of the Ohio and east of the Mississippi. Here we have seen, under a regime of complete free trade within the country, the steady growth of manufactures. Where the field was favorable for a new industry, whether from rich natural resources, from advantage in location, or from ingenuity and enterprise among the leaders of industry and the rank and file, there the industry has expanded and flourished, unchecked by the competing establishments of the older states. Some of the industries that so sprang up in the Central region have been of the kind that felt the stimulus of protection

against international competition. Some have been quite independent of this stimulus, the question being not whether they would spring up within the country, but where within the country,—whether along the seaboard or in the interior. In either case, the full competition of the older regions of our own country has been felt by the newer regions. The diversification of the newer regions has nevertheless proceeded smoothly and steadily. That diversification continues and will continue, notwithstanding the most absolute free trade throughout our own borders. No artificial fostering as against the manufactures of the East has been possible: though, if possible, it would doubtless have been asked. Yet the growth of manufactures in the Central region has been perhaps the most striking change in the industrial structure of the country during the last generation.

These familiar facts must make us hesitate before ascribing to legislative interposition too much effect on the development of new industries or on the general course of economic progress. I have already referred to the difficulty of disentangling the complex forces that bear on economic progress, and will not pretend to offer anything in the way of proof for what I have further to offer as to the relative weight of different factors. Briefly stated, my belief is that the general structure and spirit of the social body are much more important than specific encouragement to this or that industry. Any detailed statement of the grounds of this opinion would carry us into fields much more speculative than those which have been considered in the preceding pages; and it must suffice to illustrate rather than support it from a brief consideration of some aspects of social and economic history.

Consider first the case of England. Clearly several causes contributed to the remarkable economic advance of that country during the eighteenth and nineteenth centuries. Her insular position preserved her from the wars which devastated the Continent. Her indented coast cheapened internal transportation from an early date. Her great mineral resources supplied the foundations of the modern workshop. The protective system of older days is supposed to have nurtured her industries until they became independent,—with how great effect, is the debatable question. But most important of all has been the atmosphere of freedom and the clear avenue to glittering success which has been open to all who were capable and strong. Political freedom came first, and soon was supplemented by industrial freedom. Hence the all-pervading spirit of ambition, resource, enterprise. To this spirit a stimulus of incalculable strength has been given by the curious development of the British social hierarchy. Nowhere has the aristocracy held its place so strongly in the esteem of the rest of the community, and nowhere has admission to that aristocracy been more free to the successful. The rich merchant, manufacturer, banker, mounts readily on the social ladder. Given plenty of riches, a little time, and he or his descendants become associates of peers, very likely themselves become peers. In the eighteenth century Adam Smith, remarking on the differences between England and France, mentioned France as a country where trade is in disgrace, and England as one where it is highly respected. The materialism of the British aristocracy and the snobbishness of British society have long been topics for the satirist. But materialism and snobbishness have enlisted the strongest of social

motives, the undying love of distinction, in the direction of economic initiative and varied development.

Factors of the same kind have been powerful in our own country. Every career and every degree of success have been open to all ; and open not only under the law, but under the mobile conditions of a thoroughly democratic community. The most obvious avenue to distinction has been the attainment of wealth ; a state of things by no means of unmixed advantage, but with unmistakable effect on industrial progress. Large enterprises, whether in trade, manufactures, or transportation, have long enlisted the most capable intellects of the country. Every opportunity for the conduct of business on a large scale has been eagerly scanned with keen eyes by the captains of industry. Add to this, the early development of a high degree of mechanical skill and ingenuity, and natural resources which are varied and abundant to an unusual degree, and you have conditions under which legislative stimulus is at best of secondary importance. The evidence seems to me conclusive that the United States, under any tariff system, would have become a country with varied industries and with highly developed manufactures. The protective duties have only affected the degree and the direction of that development.

Still another factor deserves to be noted. Not only the spirit of freedom and enterprise within the community has its effect, but that spirit with reference to other communities also. The political position of a country and its martial success seem to have a reflex effect on the industrial success of its citizens in time of peace.

Here the recent development of Germany is apposite. Her industrial advance during the last thirty years is one of the striking phenomena of our time, and leads

naturally to speculation as to its causes. No doubt these causes are varied, as in all such cases. The thorough organization of popular education and of scientific education is one cause. The stimulating effect of free trade within the country, as established by the Zollverein since 1834, is another: though this gain had been enjoyed by France throughout the nineteenth century, and by England for centuries before. Much is due to the whole change in the political and social atmosphere which came with the crumbling of petty absolutism, and which was consummated with the foundation of the German Empire. But to all this must be added the new spirit which came over the country after the war of 1870. Germany emerged from the conflict with a new sense of strength and confidence. The new feeling communicated itself to the field of peaceful industry. Vigor, enterprise, and boldness showed themselves. Large enterprises in new fields were launched and successfully conducted, and great captains of industry came to the fore. A spirit of conquest in all directions seems to have spread through the people, bred or at least nurtured by the great military conquest of the Franco-German war.

Is it fanciful to suppose that consequences of the same sort have appeared in other countries also after victorious wars? England emerged from the Napoleonic wars with a great feeling of pride and power. She alone had never yielded to the great conqueror. The period which followed was that of her most sure and rapid economic advance. She then established the hegemony in the industry of the civilized world which she maintained through the century. The northern part of the United States, after the Civil War, felt a similar impulse. That struggle had been on a greater scale than was dreamed of at the outset, and its outcome

proved the existence of unexpected power and resource. It is probably no accident that the ensuing years showed a spirit of daring in industry, and sudden and successful activity in commercial enterprises.

No one is more opposed than I am to all that goes with war and militarism. It is with reluctance that I bring myself to admit that the same spirit which leads to success in war, may also lead to success in the arts of peace. Yet so it seems to be. Men being what they are, nothing rouses them so thoroughly as fighting. The temper which then pervades a community, communicates itself by imitation and emulation, and shows itself in all the manifestations of its activity. A great war lifts the minds of men to large undertakings, and takes its place with other factors in stimulating the full exercise of the powers of every individual.

We are in danger of straying far from our subject. Yet the digressions to which the argument for protection to young industries has led may serve to enforce one conclusion to which the consideration of the whole free-trade controversy must lead the patient inquirer: namely, that the effects of tariff legislation are commonly much over-estimated. Difficult as it may be to separate the causes of industrial growth and to measure their relative weight, it seems to me clear that the factors are many and various. In any larger survey, the effects ascribable to a protective system, either for particular industries or for general economic growth, are among the subordinate phenomena, and far from having that transcendent importance so often proclaimed by its ardent advocates.

I turn now to an opinion, or point of view, to which reference was made in the opening paragraphs of this paper: the opinion that after all on our subject there is

no fundamental principle. A set of writers, especially among contemporary German economists, take what purports to be a severely judicial attitude. In their view there is no established theory, and no reason for ascribing greater validity to the doctrine of free-trade than to that of protection. It is all a matter of advantage or disadvantage in the given case. Some countries may prove on inquiry to need free-trade, some protection. A policy of opportunism is the only sensible one, and the controversies about theories of international exchange turn on barren abstractions, which do not touch the concrete facts of industry.

For myself, I confess to little patience with this attitude. It assumes to be large-minded and judicial, and a certain tinge of contempt for the old fashioned theorists often goes with it. Yet in truth it rests, I can not but suspect, on inability or unwillingness to follow the threads of intricate reasoning. No doubt it is true that the concrete circumstances of a country must be examined and considered before we apply to it a given policy. But it is none the less essential to make up our minds as to the principles on which our policy should rest. No doubt it is especially true that, in weighing the chance of the advantageous application of protection to young industries, the actual conditions of each case and the prospects of success should be carefully studied. But it is none the less necessary to reflect what are the foundations and limitations of such protection, and what are the real tests of success. On all such questions of principle, we often find a sad lack of clear-cut reasoning among our German colleagues. This defect does not show itself solely in the protective controversy. It appears in almost every part of the economic field, as soon as the more difficult problems

are touched. In the theory of value, of distribution, of prices and the value of money, as well as in that of international trade, there is in many current manuals and text-books a pseudo-judicial attitude, which admits some merit in this position as well as in its opposite, opines that such a view must indeed be considered but must not be pressed too far, and such further double-facing expressions, which end in leaving the reader quite in the dark as to the author's conclusions as to the heart of the matter in hand.

It is easy to account for this stage of thought, especially among the writers of the second rank. In many directions economic theory is being re-fashioned, and on many topics there is not yet a consensus of opinion. At least, there does not appear to be such a consensus; though the differences among economic thinkers on the large questions of principle are much less fundamental than they are sometimes made to appear. Yet it is not to be denied that on some deep-reaching topics, especially in the theory of distribution, economic theory is now in a stage of transition. As it happens, however, there has been least attempt at change, and there is least occasion for change, in the theory of international trade. On that part of the subject, the edifice of which the foundation was laid by Adam Smith and his contemporaries, and which was further built up by Ricardo, Senior, and the younger Mill, remains substantially as it was put together by these ancient worthies. Something has indeed been added by recent writers; yet nothing that calls for a remodelling of the old structure. On the nature of international trade, on its peculiarities, its working machinery in the foreign exchanges and the flow of specie, its connection with the drift of labor and capital to different industries, its bearing on the demand

for labor, and not least the effects of restrictions in the way of taxes,—on all these topics the old doctrines have never been seriously shaken. Qualifications of one sort and another,—deviations from the regime of freedom such as Adam Smith himself conspicuously enumerated,—contingencies under which commercial blows may be so planted as to convert an opponent into an ally—these have long been admitted. Certain refined and ingenious trains of reasoning have been brought forward, too, of late years, regarding the effects of protective duties on the distribution of wealth and on the ultimate elements of social well-being. They connect themselves with some of the more recent speculations in economic theory at large. Like these, they have had no effect, as yet at least, outside the small fringe of scholars and teachers, and no very marked effect even within that fringe. A discussion of them would carry this address far beyond the permissible limits. At best, they suggest only still further qualifications and still other possible exceptions, and they leave intact the core of the classic theory of international trade. That theory, in its essentials, holds its own without a serious rival.

This being the case among the thinkers, the question naturally arises as to how it happens that the opposite theory, or at least the policy based on a very different theory, holds its own in the field of legislation. Some consideration, however brief, must be given to this question in any inquiry as to the present position of the doctrine of free trade.

There is no one explanation of the strong hold which protection now has, and bids fair for some time to maintain. The effectiveness of its appeal to the every-day man has already been noted. The arguments about employment, labor, domestic industry, home markets

and foreign markets, rejected though they have been in all respectable economic writing, emerge again and again. They will not down, and create a set of prepossessions favorable to the adoption of protectionist legislation. But in European countries (for the moment, I have not the United States in mind) its actual adoption has been immensely promoted by two other factors. One is the competition of new countries in agricultural products. The other is the growth and intensification of national feeling.

The effect of the competition of new countries is obvious enough. With the cheapening of transportation, not only England, but France, Germany, and the other countries of Western Europe, have been invaded by supplies of cheaper food and raw materials. The agricultural classes have felt the pressure of foreign competition. Formerly indifferent or even hostile to high tariffs, they have now been led to join in the demand for protection against cheaper foreign supplies. In England the agricultural interest has always been restive under free trade. In France and Germany, with the new democratic conditions, its influence now constitutes a strong political force against the application of that doctrine.

Not less important, however, is the sentiment of nationality and its unfortunate counterpart, to the sentiment against foreigners. Of the ennobling and beneficent effect of national feeling I need not here speak. Its less favorable aspects unfortunately are most conspicuous in relation to our present subject. Cobden and the other English free-traders of half-a-century ago looked forward to a coming era of peace among nations, strengthened by the links of friendly exchange and mutual benefit. How sadly have these hopes been disappointed? Militarism is no less strong than it was,

even stronger; and every European nation habitually holds itself in readiness for war.

Even the sober economist, unmoved by sentiment, and looking solely to the direct and traceable consequences of this state of things, must admit that here is a situation that does not fit into the free trade ideal. Great Britain, for example, depends for feeding her people on foreign supplies; and it is an inevitable consequence, however regrettable a one, that she must have a powerful navy as security against starvation in case of war. No doubt the balance of material gain is in her case clearly in favor of free trade: it is cheaper to have a navy, even a huge and expensive one, than it would be to support her population at home. But, as international relations now stand, there exists this expense to be offset against the gain. In Germany at the present time the same set of persons who advocate the development of Germany as an exporting country and a "world-power" demand a great navy. Oddly enough these same persons are protectionists also. But if a navy is needful to safeguard exports, it is no less needful for the imports which must also come.

It is but another phase of the same drawback against the gain from international trade, that it is liable to interruption. A war between the great countries, such as is always possible and often seems imminent, would greatly hamper foreign trade, conceivably destroy it. The greater the previous extension of trade, the more complete the overturn of commerce; and he who looks on war as sooner or later inevitable, and perhaps as not unwelcome, is not loth to have the industries of his country as self-contained and as self-dependent as possible.

The national and militant feeling, however, has effects on public opinion far beyond such deliberate weighings of gain or loss under war and peace. It rouses a whole train of sentiments which run against trade with other countries. It fosters international rivalry in every sphere. Deliberate and accurate weighing of the benefits of foreign trade, such as it is the business of the economist to undertake, probably determines the opinions of a very small circle indeed. The state of mind of the immense majority is settled by their general feelings and prepossessions. These are in favor of the native country and against foreigners; in favor of home markets and home products, and against foreign competition. Add to this the strong appeal which protectionist reasoning makes to the instinctive prejudices and the inherent selfishness of the every-day man, and you have an explanation of its continued hold.

In the United States the situation is different from that in European countries. Here we have in recent times no industrial invasion from foreigners; we are ourselves the invaders. The feeling of nationalism is doubtless strong, and has promoted protection effectively, but the peculiar fervor which militarism adds to it we have not experienced, unless it be under the conditions of the last few years. The maintenance of our protective system—I will not say of any such system, but of the extreme and intolerant protection which we have developed—seems to be explicable chiefly on historical grounds. Certainly its beginning is not to be ascribed to any deliberate choice. The system as it now stands goes back to the Civil War, and is the unexpected outcome of the heavy duties then suddenly imposed. It has maintained itself chiefly by the effects of custom

and iteration. The industries of the country have become habituated to it; and what is no less important, public feeling has become habituated to it. As in England for a generation, free trade was the accepted doctrine from the sheer force of use and habit, so in the United States protection has been the accepted doctrine. And, needless to say, just as continued material progress strengthened the hold of the accepted system in England, so it has strengthened the hold of the opposite system in the United States. The appeal to let well enough alone is always effective. The economic critic may see in other directions abundant explanation of our well-being, and may say that a country with such resources, such institutions, and such a population would have prospered under any commercial policy. But the fact of prosperity tells powerfully in favor of the legislation that in fact has been followed. It is not probable that any substantial change of policy will be made until this correspondence has been broken. When evil days come, as sooner or later come they doubtless will, then placid acquiescence in the existing order of things will no longer bolster up the protective system, and the time will be more propitious for a deliberate overhauling of accepted notions and beliefs.

Thus, in conclusion, it may be said that the fundamental principle of free trade has been little shaken by all the discussion and all the untoward events of the past half-century. But its application is not so easy and simple as was thought by the economists of half-a-century ago. A principle can be stated in clear-cut terms, and an answer of yes or no can be given with regard to it. The mode of its application, however, raises questions of *pro* and *con*, and often involves a

balancing of conflicting principles. The question of principle is none the less important, and important for practical purposes. He who is convinced that the use of alcoholic liquors is overwhelmingly harmful may hesitate, in the world as it is, whether to favor absolute prohibition, or government management, or private trade under license and control. Yet, if he has the question of principle clearly settled in his mind, he will combat steadfastly popular errors about healthful effects of alcohol, and will welcome every promising device towards checking its use. He who believes that war is evil and wasteful, and militarism preponderantly bad in its spirit and effect, may regretfully admit that armies and navies must be maintained, and much labor misapplied in the making and using of instruments of destruction. Yet he will oppose every unnecessary increase of armament, avoid every occasion for rousing others to rivalry in warlike preparation, and welcome every opportunity for the peaceful settlement of disputes between nations. So he who believes that international trade is but one form, and no peculiar form, of the division of labor, and that, like all division of labor, it is preponderantly beneficial in its effects, may admit that its application in a given country raises problems not to be disposed of by mere appeal to this principle alone. Some of the qualifications have been considered in what has preceded; and others will readily occur to you, such as the demands of public revenue, a needful regard for vested interests, the political and social effects of trade within the country and without. But in considering any question of concrete commercial policy, it is necessary first to know whether a restriction on foreign trade is presumably a cause of gain or loss. Is a protective tariff something to be regretted, for which an offset is to be sought in

in the way of advantage in other directions, or something which in itself brings an advantage? The essence of the doctrine of free trade is that *prima facie* international trade brings a gain, and that restrictions on it presumably bring a loss. Departure from this principle, though by no means impossible of justification, need to prove their case; and if made in view of the pressure of opposing principles, they are matter for regret. In this sense, the doctrine of free trade, however widely rejected in the world of politics, holds its own in the sphere of the intellect.

A THEORY OF PRICES

J. LAURENCE LAUGHLIN

§ 1. Assuming that the problem of the *theory of prices* is the same problem as that of the *value of money*, we are at once required to explain that by value of money we mean the *exchange value* of money. With this understanding, it is evident that the level of prices is only a statement of the exchange value of money in terms of goods in general. A fall, for example, in the value of money necessarily carries with it the fact of a rise in the prices of goods. In the relation of a particular commodity to money, price is the quantity of the money, for which it will exchange. If we are speaking of gold prices, the price of a single commodity is the quantity of gold for which it will exchange. One cannot think of price except as a ratio.¹

The theory of prices, therefore, is clearly a question of exchange value. Consequently, its solution does not appear to me to be involved in the solution of the fundamental theories of value, such as the case of marginal utility versus cost of production. If value be regarded as an unrelated magnitude of utility, or as subjective importance, we should still have the problem of exchange value. Whatever may be the various theories suggested as regulating the value of gold, or of a given commodity,

¹ It is impossible for me to understand Professor Kinley's idea of value as "the quantity of marginal utility of an economic good"; and that the unit of value may be "the amount of value in a chosen quantity of any article." (*Money*, p. 62). The qualities of an article inhere in it; its utility arises from a relationship between these qualities and the needs of men; and these matters affect the exchange value of an article. But this gives us no explanation of exchange value.

we cannot escape the fact that exchange value between gold and goods is the problem of the value of money. And there seems to be a general concurrence in this simple proposition.¹ I am certainly in general agreement with most economists at this point.

§ 2. When we mention the value of money, however, it is also necessary to know what we mean by "money." At this point we must, as investigators, be willing frankly to admit that there is no agreement whatever as to the usage of the term "money." Even the same writer will use it in different senses. To some, as Nicholson, for instance, money—so far as it concerns prices—is gold and nothing else; to others, like Walker, it includes also government paper and bank notes; to still others, it includes all the forms of credit such as bills of exchange and checks.

It is evident enough that progress can be made only by some definite conceptions of the functions of money. In my opinion the distinction between the standard commodity in which prices are expressed, and the media of exchange by which goods are in fact transferred conveniently, is essential to any insight into the real problem of prices. This distinction is simple enough, but it is far-reaching in its influence on the price question. For instance, we, in the United States, have the gold standard; and, by our definition of price, the price of any commodity is the quantity of gold for which it will exchange. If this be so, the elements of

¹ J. S. Mill: Price is "the quantity of money for which it will exchange," (Bk. III, Ch. 1, § 1). A. T. Hadley: "A price, in the commercial sense of the word, may be defined as the quantity of money for which the right to an article or service is exchanged." (Economics: p. 72). Cf. also Seager: Political Economy, p. 51; W. A. Scott: Money and Banking, p. 34, and many others.

the analysis of price-changes are to be found, very evidently, in the relative values of goods and gold. The exchange value being not an absolute but a relative thing, we must, in a study of the price problem, deal with all the forces which can influence the ratio between goods and gold. To deal only with those affecting gold, or the money side of the ratio, to discuss only the demand for gold and the supply of it, would be inadequate and unscientific. To assign the causes of changes of price chiefly to variations in the quantity of money is not only one-sided, it is also ambiguous; because "money" is only one side of the price-ratio, and to those taking this point of view "money" may not mean only the standard.

To this point, obviously, everything is simple; but here an honest inquirer rightly may suggest that there may be forces working on the value of gold, and thus on prices caused by the volume of other forms of money than gold, such as government paper, bank notes, and forms of credit. In the evolution of monetary conveniences, society has constantly aimed at finding safe media of exchange to avoid the use of the valuable standard, and this fully accounts for the creation centuries ago of such institutions as the banks of Venice and Amsterdam; for the invention of the bill of exchange; for bank notes; and more lately, for checks and deposits and clearing houses. In the main, the increase or decrease in the volume of the media of exchange has an effect on the value of gold, and thus on prices only in so far as it touches the demand for gold. As a rule the evolution of these various media of exchange has saved gold from being used as a medium, and relieved it of demand as transactions have increased. The influence

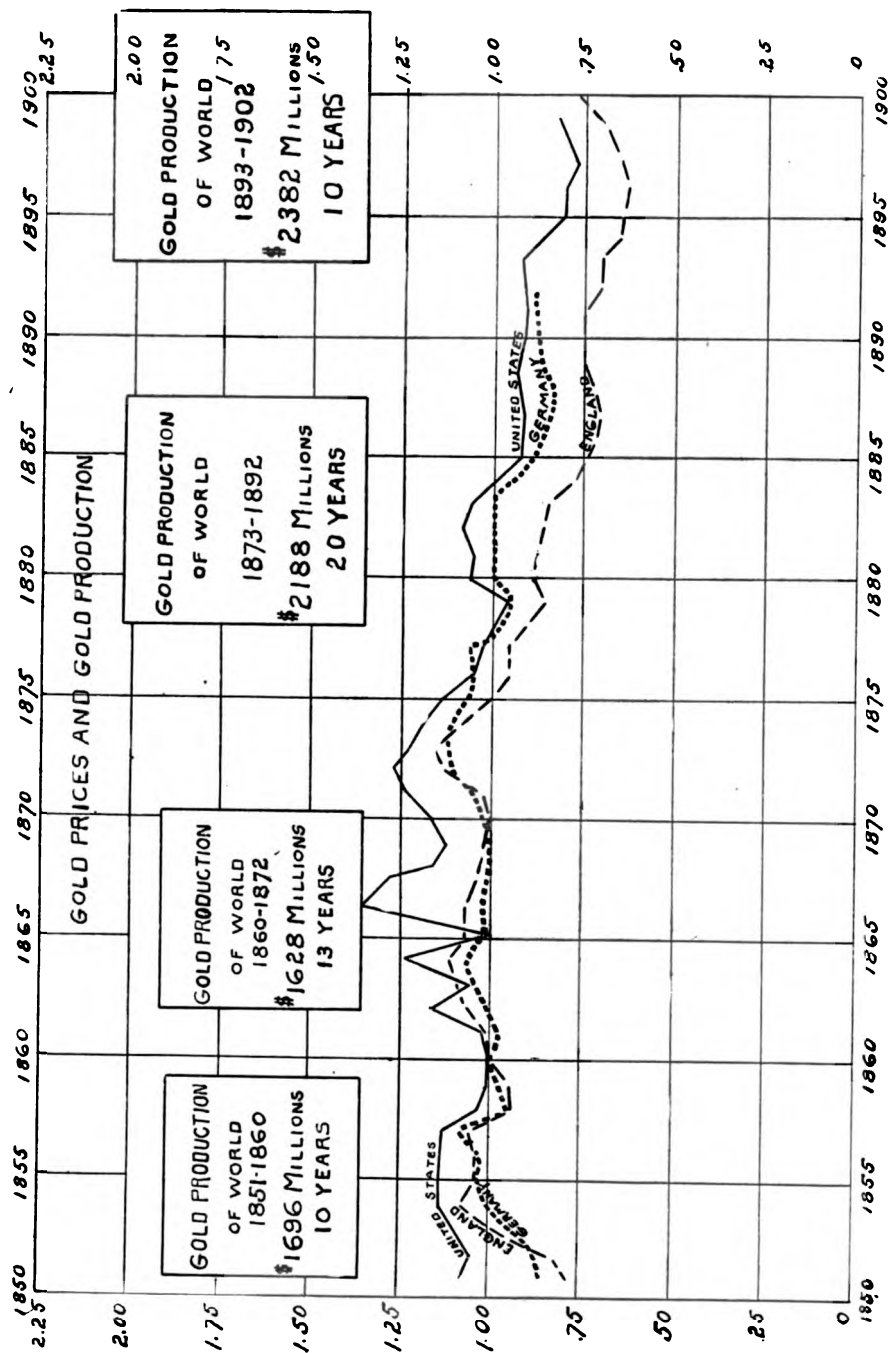
upon prices of the quantity of the "circulation," when that word means media of exchange, therefore, is referable to the class of forces affecting the demand for the standard commodity. And demand for gold, or a standard, is but one of several sets of forces which influence the level of prices, or the value of "money." Yet it must be remembered, while sharply distinguishing between the function as a standard and that as a medium of exchange, the same article chosen as the standard, like gold, may also be used as a medium of exchange. Although, as in the case of gold, the quantity of this last use may not be large, still the principles of price in operation are acting not the less distinctly upon that part which is standard differently from that part which is medium of exchange.

§ 3. Obviously the supply of the standard commodity must be one force affecting its value, and thereby the level of prices. Yet the operation of supply on the value of an imperishable commodity, like gold or silver, is not the same in different epochs. To change its value the new supply must be large relatively to the total stock; consequently as production goes on, the total stock begins to assume an amount quite out of proportion to the new supplies from year to year. Thus changes in the annual product have less and less practical effect upon the value of the standard—certainly if we have gold in mind—and hence upon prices. If changes in new supply have an effect, which theoretically always exists, that effect to-day will be very slow and gradual in its results on the level of prices.

The supply, of course, cannot be considered by itself; it must be taken in connection with demand. As we all know, an increased or diminished demand becomes

effective on the value provided the stock is of such a quantity that the force of demand is appreciable on the total stock. If, then, the existing stock is very great, the effect of ordinary changes in demand, or even some considerable increase in demand, could produce little change in the value of the world's total supply. Hence, variations in the level of prices due to the fluctuations in demand for a standard, like gold, would also be very gradual and very long in producing evident results in general prices.

§ 4. A frequent error in past discussions of prices has arisen from the careless neglect of the pivotal and elementary nature of price. The price of any one article is the quantity of the standard for which it will exchange. We are studying a case of exchange value; and the price obviously can be modified by anything which raises or lowers goods relatively to the standard. If the standard were supposed constant, any one knows that changes of price could be brought about by changes in the expenses of production of goods. Put a tax on goods and it is expected in general that their prices will rise; introduce wonderful new inventions which save labor, and without question the price of the goods thus affected will fall. In neither case is it possible to refer the change in prices to changes in the demand and supply of "money" (however it may be defined). In reality, since price is the relation between goods and a metallic standard, like gold, and since the enormous production of gold has created a very great total stock, any sudden or extreme fluctuations in prices, in any few years, could not be assigned to causes operating on the money-standard, but to those operating on goods themselves.



Hence the active causes working on the level of prices in the real world of to-day are not to be sought by confining ourselves to the one side of "money" in the exchange ratio. The general level of prices is the resultant of the two sets of forces acting both on the standard and on goods in general. The definite outcome can be known only after an examination of the relative strength of the various counteracting, or assisting, forces on both sides of the ratio. For instance, in the last thirty years there has been an unexampled progress of the arts, which has reduced the outlay in producing nearly every article of our daily consumption. In the same time there has been an unparalleled gain in the yield of gold. The total stock of gold has been at least trebled, if not quadrupled. There has been some increased demand from countries adopting a gold standard, but in no proportion to the increased supply. At present only about one-half of the total stock of gold is used in the currencies of the world. Therefore, gold ought to have fallen in value. Relatively to a day's labor it has fallen. On the other hand, the marvellous achievements of invention and discovery, have in general lowered the cost of obtaining a given unit of goods (*i.e.*, a yard, a ton, etc.) in such a phenomenal way that in the race for cheapness of production goods have outstripped gold. This outcome is the resultant of the several forces acting on the general price-level during the last thirty years. As compared with prices about 1879, the general level of prices to-day is about 20 per cent. lower. And I am confident this fall cannot be ascribed to any scarcity of gold, or of "money" in any form.¹ The facts may be seen at a glance in the accompanying diagram.

§ 5. This analysis of price, and the consequent theory of prices goes with the insistence upon the fundamental nature of exchange value, and upon the definition of price. Clearly enough, it ignores some preconceptions which many of us have imbibed from all our earlier studies in economics. Sometimes I have been wrongly classed as a rigid Ricardian. Strangely enough for this classification, the improvement of our monetary theory obliges us, in my opinion, to depart from some of the accepted propositions of Ricardo. He has led many followers to put too much emphasis upon the effect of the quantity of money on the level of prices.

At this point let me insist that I do not remove "the quantity of money" from the forces which have an influence on prices. Full and sufficient emphasis has been given the theoretical effect of an increase in the supply of the standard commodity upon its value, and thus upon prices. Likewise, the effect of changes in the volume of media of exchange upon the value of the standard has been considered. But I am quite aware that some may believe that the quantity of the media of exchange has a direct effect on prices in other ways, by being offered for goods as purchasing power; or that, with increasing transactions, the lack of media of exchange may cause a fall of prices. It is exactly on this point that some explanation of the application of my theory of prices may be permitted.

§ 6. Please remember that I am asked to outline a vast subject like a theory of prices in thirty minutes, and that I cannot always give to each proposition its proper limitations. Yet I wish to insist, first of all, upon the idea that the valuation of goods, or the deter-

mination of their price in some standard, is as a rule the outcome of conditions antecedent to the formal act of exchange in the market for any form of money. The offer of a certain amount of some media of exchange for goods merely records the antecedent price-making process. The media of exchange come into play after the price-making process, and not as a part of that process. In the main, the media of exchange are a consequence, not a cause, of the influences determining prices. All the elements touching the acquisition (materials, labor, transportation, etc.) of an article; the intensity and nature of the demand for it from consumers; the influence of monopoly conditions—all these are in constant operation in determining the quantity of gold for which the article will be bought and sold. After these forces have done their work, and a price adjusted by these forces has been fixed in the markets, the goods thus valued, or expressed for convenience in terms of a standard, are actually exchanged (or paid for) by some medium of exchange, which, in these days, is seldom the standard commodity. The service rendered by the medium of exchange is purely one of convenience. The seller receives for the price, previously agreed upon, some means of payment (notes, checks, drafts, etc.) related to the standard indirectly by some test of solvency not material to the price-making process here under discussion. In most cases, such as selling wheat, or cattle, or wholesale goods, the media of exchange arises out of, and, as a consequence of, a discount based on the actual transaction. In these matters, a medium of exchange is provided by the banks in exact proportion to the sum of the value of the goods. As a matter of course, the quantity of the media of exchange must be drawn for sums equal to the transac-

tions, as expressed in dollars, or in terms of the standard. What should be kept in mind, however, is that in this whole process the "money," *i.e.*, the media of exchange needed to perform the transactions, is not a factor in fixing the price per unit of goods. What buyer or seller of wheat or cattle is influenced in fixing the price of his goods by calculations as to the total supply of money in the country, as compared with the work to be done?

§ 7. Yet to many minds the amount of a man's purchasing power, which he can offer for goods, and which consequently affects the prices of those goods, is the quantity of "money" which he can offer. In this way it is sometimes assumed that the quantity of "money" put into circulation is synonymous with the demand for goods in general; if the quantity of "money" is reduced the demand for goods is reduced, and *vice versa*. Therefore, it is argued, the quantity of money in circulation is a direct factor in fixing the level of prices.

To my mind this is a superficial way of looking at the price-making process. If we hark back to simple, fundamental forces, we ought not to go astray on this matter. In the first place, because all goods and property are conveniently expressed in dollars, or in the gold standard, we are apt to think of money, instead of goods, as the primary factor in trading operations. In the essentials of production and consumption, goods are the primary thing, while money is only a secondary or incidental thing, introduced solely as a convenience and subsidiary to the main operations of satisfying economic wants. In the next place, a man's purchasing power, in any sense in which he can have a vital influence on the prices of things he desires, is measured not by the

amount of money he has, but by the amount of his wealth; or, to put it more exactly, by that part of his wealth which consists of cash and of immediately saleable goods. Since immediately saleable goods are always a basis of legitimate discounts, it amounts to saying that a man's purchasing power is limited by the amount of his cash, plus his credit.

When we mention this conception of a theory of "purchasing power," which to some persons forms the demand for goods in general, we are at once introduced into the subject of demand for and supply of goods. In short, what is demand for goods? That ought to be a simple question; but it is not, if demand for goods is made synonymous with the volume of those instruments variously defined as "money." In case of particular demand and supply, a fluctuation in demand may cause a change in the market price of the one commodity in consideration. That is one of the ways by which readjustments of the values of commodities relatively to each other may take place.¹ Or an increase in expenses of production, or the operations of monopoly, might change the price in the face of a persistent demand. On the other hand, in the case of a general demand and supply, we all know as an economic commonplace that they are only different ways of looking at the same total mass of goods: an increase in the general supply of goods is obviously an increase in the general demand for goods. Such operations do not act to change the level of prices, or the relation of units of these goods to a standard commodity, such as gold. Ranchman A may go on

¹ And a number of changes of this kind in several groups of goods, under a speculative influence, may theoretically lift the level of prices and so change the value of gold; but this would be temporary and due to abnormal conditions.

increasing the number of cattle in his herd, and farmer B may go on increasing the yield of wheat on his lands, but the mere increase of cattle, or of wheat, does not necessarily lower the price of cattle or wheat. To explain a particular price we must also deal with the actual demand for cattle, or wheat—arising from those who have immediately saleable goods or cash—as compared with the increasing supply. Our fine-spun theories are often held up by a sharp glance at well-known facts. In the last few decades we have witnessed a prodigious addition to the stock of saleable goods in our markets; the total productivity of our capital and labor has been marvellously increased; and consequently each unit, in the large total output of units of goods: can be sold at a lower price than before. These are gold prices, and yet no one can for a moment ascribe this fall to a scarcity of gold.

At this point, however, reference may be made to some great new production of gold, such as that after 1850, and it may be argued that this increase in gold caused a rise of prices.¹ To this contention let me say that new wealth of any kind—new gold, new wheat, or new cattle—add to man's purchasing power; and, apart from the effect on the world-value of gold of a new supply of gold sufficient to disturb the total existing stock, new wheat ought, according to that theory, to raise the

¹ In 1850 and thereafter the new supply of gold was large relatively to the existing stock, and the value of the standard commodity must have fallen, with a consequent effect of a tendency to higher prices, which was doubtless exaggerated by speculation.

But, in the last fifteen years, the unexampled increase in the production of gold has not perceptibly influenced prices, owing to the already large accumulations in the total stock. These later events show unmistakably that an enormous increase in the stock of gold can take place without directly influencing prices. See the diagram opposite page 71.

general price-level, because of increased "purchasing power," just as much as a similar sum of gold. Keeping in mind that we are here concerned only with the idea that "purchasing power" is the form by which prices in general are affected, we may see that increase of wealth in any form ought to increase purchasing power, and thus raise prices; but we all know it does not. Hence there must be something wrong with this way of determining prices. In my judgment the error lies in not seeing that purchasing power is synonymous with goods and not with "money."

§ 8. Probably, when we were discussing the phenomenal increase in the production of goods, it may have occurred to some that the vital thing in lowering prices was passed over; that this vast addition of new goods has made a corresponding increase in the demand for "money" to carry on the new volume of transactions; and that prices must have fallen because "money" has not been sufficiently enlarged in amount.

Before discussing this point, let me have a word as to the logic employed. If it be shown that transactions have increased—which all admit—and also that prices have fallen, it is not competent to assume that prices have fallen because "money" has not increased in proportion to the transactions. This method of arguing assumes the whole point at issue—the cause of the change in the price-level. In order to prove that the amount of money in circulation regulates prices, it is not permissible in the progress of the argument to assume the thing to be proved.

To pass now to the main question, there is a strong belief that—even if we admit that the demand for goods

is not synonymous with the volume of the circulation—the demand for money, in exchanging goods, is imperative, *sui generis*; and that an increase of transactions would necessarily increase the demand for “money,” enhance the value of “money,” and thus lower prices. It is exactly in this connection that, in my judgment, the inadequacy of the old reasoning about prices most clearly appears. In a word, this inadequacy is to be found in an untenable assumption about the conditions under which the issues of money are made. It is impossible to start with the assumption that the quantity of the circulation is capable of monopoly. And yet this is the Ricardian hypothesis. If there were limited sorts of media of exchange, and if these were wholly under control as regards the quantity outstanding, the conclusion which follows might be hypothetically correct, but it would be quite aside from the facts of to-day.

It is true that the demand for some media of exchange, by which the inconveniences of barter may be obviated, is in a sense imperative. The great mass of modern transactions could not possibly be carried on without the use of some form of a medium of exchange. But in our day there is a wide choice between various media of exchange. Instead of there being only one kind, over which there is a monopoly control by the State, there are many available kinds. In the United States, for instance, should gold be required as a medium, there is free coinage, and a demand for its use would be a demand upon the large existing stock in the world, and not upon the sum actually in use within this country; in a real sense gold is an elastic currency which can be freely imported or exported. But, for the transfer of goods there are also government notes, national bank

notes, bills of exchange, drafts, and the deposit-currency of banks. If there is an imperative demand for a medium of exchange, and if it is found that one sort of medium is limited, instead of a persistent demand that will raise the value of that one kind, the need can be satisfied by some other. No exceptional pressure will be brought to bear on the value of one kind until the capabilities of all kinds have been exhausted. Indeed, the final outcome is that in the deposit-currency we have a machine capable of expanding exactly in proportion to the work to be done. It is this medium of exchange which takes up all possible excess of demand which conceivably might fall on the other media (in most communities having wholesale transactions). Therefore, instead of there being a demand for a medium of exchange which produces a need so imperative that it can give thereby a special value to a form of money, we must believe that with the growth of legitimate transactions, there is created *ipso facto* a medium by the banks in a proportion corresponding exactly to the new need. This is no new saying, but only an application of a truth long ago expressed by a former President of this Association, as follows :

“If the United States government were to pay off every legal tender note, and if every bank-note were to be withdrawn, these changes would produce no real contraction of the currency. With specie thus brought into common use for smaller and every-day transactions, we should, it is true, have a currency far less convenient for its minor uses, and we should no doubt see the use of the deposit and check system thus carried prematurely into classes of transactions and sections of country where the note now meets a popular demand ;

but, as regards the mass of exchanges from which the business condition of the country at any given time takes its tone, we should find them carried on as now, by a creation of bank credits on whatever scale the needs of the time might require."¹

Nor does it touch the pivotal point of the price question to discuss the effect on prices of changes in the rate of interest. A rise in the rate of interest, as is known to all economists, is a rise in the charge for the use of capital, and does not necessarily involve a demand for standard money in which prices are expressed. But the essential fallacy in trying to connect the "value of money" with the rate of interest consists in supposing that price, or the exchange value between goods and some standard, can be determined by studying only the forces on the money side of that exchange.

§ 9. It seems to me obsolete to talk of the offer of goods as the true demand for "money," in any sense that such a demand regulates its value. The need of a medium of exchange requires satisfaction; but the human race has long ago evolved a means of payment, through various devices which meets this need, with very little demand upon the valuable standard itself, and consequently without creating any effects to speak of on the value of gold, and thus on the level of prices. In applying the theory of demand and supply to the price problem, the demand for a medium of exchange is not at all synonymous with a demand for the standard in which prices are expressed. Nor is the supply of "money," which has any direct influence on general prices, the supply of the media of exchange. We may

¹ C. F. Dunbar, *Deposits as Currency*, *Quar. Journ. Econ.* I, July, 1887, pp. 409-413. Also *Economic Essays*, (1904), p. 179.

have vast changes in the supply of media of exchange without causing any changes in the price-level. If such changes take place in this kind of money they are in the main referable to changes in the condition of business, to a rise or fall of the volume of transactions, due to causes quite independent of the quantity of "money" in circulation. The principle of demand and supply as applied to the price-question still holds good. On the one side, there is an increase, or decrease in the demand for the price-standard, as well as an increase or decrease in its supply, to be taken into account. But this is only half the solution. On the other side, there is the increase or decrease in the expenses of production of goods in general which are to be compared with the standard of prices. These points are essential elements in any theory of prices.

§ 10. No time remains to me to introduce in detail the relation of credit to the price-level. In speaking of the theory of purchasing power, it was stated that, in a true sense, a man's purchasing power consisted of all his cash, and of all his immediately saleable goods; or, of all his cash plus all his credit. The general purchasing power of a community, therefore, directed against all goods, is composed of all the cash, plus all the immediately saleable, or bankable goods. This, however, is only a statement of the machinery by which all goods,—all supply and all demand—are exchanged against each other. In truth, normal credit, by coining salable goods into present means of payment, merely sets more goods into circulatory exchange against each other than would be possible without the use of credit. In the end, since only a larger volume of goods are off-

set against each other, we have a movement of a larger volume of goods at prices previously determined by a price-making process—a process usually finished before the moment when the goods are exchanged for some form of money. With abnormal credit, there may be a temporary and fictitious rise of prices, followed inevitably by a serious decline.

The situation may be easily grasped by the accompanying simple graphic illustration :¹

(1)	(2)	(3)
WEALTH OR GOODS.	GOLD OR SILVER.	FORMS OF CREDIT.

§ 12. In conclusion, permit me to state in the form of various questions the pivotal issues involved in the theory of prices, and which must be settled before we can arrive at definite conclusions :

1. Is the price of goods the quantity of some standard commodity for which they will exchange, or is it the relation between goods and a variety of several media of exchange?

2. If true money is a commodity, like gold, then what determines the exchange value between goods and that commodity? Is the problem in any way different from that of obtaining the exchange value of any two commodities?

3. What is the actual process of evaluation between goods and gold?

4. If Demand and Supply regulate the value of money (cost of production apart), what is the exact meaning of Demand for money and of Supply of money?

¹ See, for a fuller discussion of these points, my *Principles of Money*, chap. iv, and especially, page 112.

5. Is the demand for a money-metal only the monetary demand? Is the demand for a commodity *as money* something *sui generis*?

6. In the theory of prices, what is meant by "money?" Is it only gold, or gold together with everything, such as deposit currency, which acts as a medium of exchange? In short, what constitutes the supply of money?

7. If prices are influenced by "purchasing-power," is that synonymous with the sum of the existing media of exchange, multiplied by its rapidity of circulation? Or is purchasing power in its ultimate analysis synonymous with the offer of saleable goods?

8. Have the expenses of production, or progress in the arts, no influence on the general level of prices?

9. What is the effect of credit on general prices?

10. How do fluctuations in bank reserves actually affect general prices? Does the rate of interest, being paid for capital and not for money, have an effect on prices through its effect on loans?

11. By what economic process would a great new supply of gold influence general prices? Only by being directly offered for goods as a medium of exchange?

12. Does the Ricardian reasoning in favor of the quantity theory of prices hold in monetary systems where free coinage of the standard money exists, and where devices other than the standard, are used as media of exchange? If mints are open, how can the coin differ in value from the bullion of which it is made?

THE RELATION OF THE CREDIT SYSTEM TO THE VALUE OF MONEY

DAVID KINLEY

The phenomena of credit present different aspects according to the point of view from which they are approached; although, of course, a correct analysis must lead us to similar conclusions, irrespective of our starting point. Some points of view and methods of approach, however, will undoubtedly cause the data to yield more readily to discussion than will others. It is worth while, therefore, to exercise some care in choosing a starting point for one's discussion. For my own purpose, it has seemed best to treat the subject from the view-point of the action of society as a unit in effecting its exchanges of goods. The question of the relation of credit and prices, then, becomes a discussion of the adjustment which society makes between its different modes of effecting exchanges, and it would appear to be simpler to follow the changes from this standpoint.

Moreover, it would be possible to trace the effects of the phenomena we are considering by starting with the idea that changes in prices are caused by the extension of credit, rather than the reverse. The objection to this mode of procedure lies in the fact that, broadly speaking, credit expands only in response to demand. It is entirely possible,—indeed it very likely happens at times,—that credit anticipates and forces a demand for more means of exchange. If an important cheapening in the credit process were suddenly discovered and adopted, doubtless the banks could properly be regarded as a starting point of a series of changes affecting the

relation between money and credit. This, however, is so exceptional a situation, and the opinion is so generally held that credit can expand only as demand for it enlarges, that it is more satisfactory to treat the subject from the view-point of changing demand. We then ask ourselves the question, How does the credit mechanism respond to such changes in demand?

In the time available, only an outline of the subject can be presented. Moreover, the discussion must be incomplete without some account of its relation to the general theory of the value of money. In order to make my position clear, therefore, I wish to state very briefly some things which, in the discussion, I must take for granted.

In the first place, it is taken for granted that the law of demand and supply applies in some way to the determination of the value of money, as it does to the value of other commodities.

The value of commodity money is not, under any circumstances, proportional to its quantity. Nevertheless, with money, as with other commodities, a change either in the supply of, or in the demand for, money, tends to disturb the ratio of exchange between it and other articles. This will result, irrespective of our view as to the course in which the causal relation runs as between money and goods, in determining the price level; and irrespective, too, of any particular theory of value. That is to say, a change in the price level, or the value of money, may take place on account of changes on the money side or on the goods side.

In the next place, money is a peculiar commodity. It does not wear out, practically speaking; and so it may perform its service indefinitely. Moreover, it may per-

form its work directly, as in the case of money payments, or indirectly, as by the use of credit. In either case, it effects exchanges and makes payments.

Society has a choice of means of exchange and payment at different costs. It meets a demand for more medium of exchange, or for the transaction of a larger volume of business, by the least expensive readjustment of the exchange system possible at the time, with the result that the marginal utility of the money article, for all uses, is the same, at the same time. We may exchange goods either by barter, by money exchange, or by credit exchange. Changes in the supply of money may not manifest themselves in price changes, because the credit system may distribute the pressure so as to maintain the previous price equilibrium. In other words, an increase in the supply of money to effect a given volume of exchanges may not change the price level, because it may simply displace, to a certain extent, other means of exchange previously employed. On the other hand, a change in the demand for means of exchange may be met, within limits, by the credit mechanism, without an increase in the supply of money, and with smaller change of prices than would occur if there were no credit exchanges.

The great service of the credit mechanism, then, is in allowing changes in the volume of exchanges, within limits, without occasioning or making necessary, any change in the supply of money used in effecting them; in so adjusting itself to a new supply of money, or a new demand for it, as to cause the minimum disturbance of prices.

We confine our discussion, of course, to bank credit. It is through the use of standard money as a reserve

that the credit system exerts its influence on the price level. It is important to consider for a moment the exact nature of the service rendered by reserve money. President Hadley very truly remarks that the most important function of money now is its service as a reserve. If we have an adequate amount of standard money for reserves, we can use other things as media of exchange; if, however, our reserves are not sufficient, no amount of other media of exchange will give us steady prices or a stable monetary system.

The standard of money held as reserve is, of course, the same as the medium of direct money exchange. Its use as a reserve provides, however, a method of performing the exchange service more effectively. It may be objected that the service performed by reserve money is not different in character from that of money used in direct exchange, and that its influence, therefore, cannot differ from the influence of money used in direct exchange, so far as concerns the establishment of a price level. But it is doubtful, at least, whether such a statement can be successfully defended. It is true that money used in reserves does not perform any new service, but it performs the old service in a much more effective way. Consequently, a much smaller amount of it is necessary to maintain, in an indirect way, the price level which would require a large amount if used only in direct money exchange.

This point is important enough to justify a little elaboration. The same power may produce consequences of different magnitude, according to the way it is used. A hundred pounds of hand pressure directly applied may not move a rock that is easily lifted when the same pressure is applied through a properly adjusted

lever. This, of course, is not an analogy, nor is any argument drawn from it. The illustration is meant merely to make clear the meaning of the statement as to the comparative efficiency of indirect and direct use of the same agent. Yet the analogy of the compound lever would not lead us far astray. For credit is, in a way, a system of balanced forces, which can be made to exert a large influence by a relatively small power. When business increases, and a larger volume of exchanges is to be effected, a very small change in the proportion of money assigned to the reserve may satisfy a considerable increase in the volume of exchanges.

Under static conditions, standard money is distributed between reserves and direct money payments in such division as to make its marginal utility for each service the same. If an increase occurs in the volume of exchanges to be performed, or in the supply of standard money, a new apportionment is necessary between the two uses. Just how this new apportionment is made, and the manner in which it affects the value of money, are points that we need to consider.

The conditions are an increased supply of commodities seeking to be exchanged, the same volume of standard money divided between direct and indirect use in making payments, all other circumstances remaining unchanged. The effect of the credit system is to cause the exchanges to be performed with the least possible change in prices.

We must remember that an increased volume of commodities offered for sale is not necessarily a demand for more money. It is a demand for more means of exchange, whether money or credit; and this larger amount of means of exchange may be furnished either

by an increased amount of standard money, or by a greater efficiency of the existing supply, whether that greater efficiency be secured by so-called rapidity of circulation or by increasing the power and scope of credit exchanges.

When the demand for more means of exchange arises, the credit system may, or may not, be in use to the limit of its capacity, as conditioned by the existing reserve and the degree of refinement of the credit mechanism. If it is at the limit of its capacity, more reserve money must be obtained. The money used in direct exchanges, commonly said to be in active circulation, will be drawn on. Hence the marginal utility of the money commodity will rise; the value of money will settle at the point where the new apportionment to reserve use will be sufficient to carry the new volume of credit; and the new amount of direct exchange money will just suffice for the exchanges to be made by ready money payments. The whole volume of exchanges performed will be divided between credit exchanges and direct money exchanges in such proportion as will make the existing money supply sufficient to effect the exchanges, on a somewhat changed price level, through the reapportionment of the money used as reserve and in direct payments. As remarked before, part of the money used in direct payments will be drawn off for reserve, while the remainder will perform the volume of direct exchanges at the different price level; the amount drawn off being such that, with what is left for direct payments and with the volume of exchanges that can be effected through credit, the total volume of exchanges to be effected will be performed. The marginal utility of the money commodity will be raised; in other words,

there will be a fall in the price level, or a retardation of its rise, as is evidenced further by the fact that there is a larger volume of commodities to be exchanged.

We may illustrate the process by tracing a sale in connection with which a credit system is established where none existed previously. A sells B a bill of goods for future payment, draws a bill on him and gets it discounted by C, taking notes in exchange. These notes are paid out by A to D, E, and others. Part of them return to C in such a way as to cancel one another, as when D or E pays a debt to B, and B turns in notes as part payment of the original bill, now held by C. Part of the notes, however, must be paid by C in money. This necessitates his keeping a reserve, and it will cause a withdrawal of some money from use in direct payment. Hence the marginal utility of money changes, a division of the money for the two modes of serving its purpose is made, as previously described, and the value of money will tend to rise.

It is unnecessary here to trace the effect of drawing the metal from non-monetary uses. The operation and its results on the value of money will be similar to what takes place when reserve money is increased at the expense of direct exchange money.

If the credit mechanism is not at the limit of its capacity when the volume of business enlarges the demand for more means of exchange, an additional amount of exchanges may be made on the same reserve. In this case, there would seem to be no rise in the value of the money commodity. Moreover, it is a common phenomenon that credit expands on a rising market; so that there seems to be a contradiction of what has been said. But the contradiction is only apparent. There occurs

a *retardation of the rise of prices*, as credit expands; and, therefore, a relative rise in the value of money, as before. Enlarging credit is accompanied with a rising rate of discount. The discount includes not only interest in the proper sense, but a payment for making the loan in the form of money, or command over money, that is, a payment for the special character of the loan. This is exacted because the growing demand for means of exchange produces relative scarcity of it. When, then, a bill drawn against goods is discounted, the true price of the goods is the face of the bill less that part of the discount which is payment for the loan of capital of a particular kind, for which the demand, for the time, is strong. Therefore, the amount of credit medium of exchange necessary to effect the exchange of the given amount of goods is less than the face of the bill would indicate, and the strain on reserve money is less. Its value will therefore rise less than on the face of things would be expected; and since, according to our hypothesis, trade is brisk, prices rise faster than the marginal utility of money. Hence, the net result appears still as a rising price level, but at a retarded speed. When the discount rate rises high enough, the payment in discount for the loan of the specific article (money, or command over it) cuts too far into the profit from the sale of the goods, and credit stops expanding. Then a positive fall (rather than a negative fall, or retarded rise) of prices ensues. I may remark in passing that a similar argument might have been used to show the effect of an increased demand for credit when the credit system is at its limit of capacity.

A similar series of phenomena would appear if there were a draft for non-monetary uses upon a portion of

the standard commodity used as money. The draft would doubtless fall first upon the bank reserves and this would be replenished at the expense of standard money in circulation, assuming, of course, that there is no new supply. The effect would be the reapportionment of the standard commodity left for monetary uses between its direct and indirect uses, in such proportion that, the credit demand being what it is, the two together will carry off all the commodities offered in exchange on the market. The marginal utility of money in this case, of course, will be raised by a diminution in its supply for the same demand; whereas, before, the marginal utility was raised by an increase in the demand for the same supply. In both cases the marginal utility of the money article for direct and for indirect payments must be the same. Of course, on the occasion of all such changes, a new equilibrium is established also between monetary and non-monetary uses of the standard; but this, and all that is involved in it, I am taking for granted in this discussion.

The value of money determined by the equilibrium between its direct and indirect use for effecting exchanges, is such that the volume of exchanges is the largest possible under given conditions. In other words, the available money is so distributed between reserve and non-reserve as to perform the largest volume of exchanges under existing conditions of credit and money supply; or, to perform the same volume of business on a lower price level. In other words, the credit system apportions the money supply so as to secure its maximum utility in effecting exchanges. Hence, it acts persistently through long periods to cause a gradual fall of the price level, in the absence of a new supply of

money; or sets at work forces which counteract the influence of such new supply. To illustrate this point, suppose some improvement in productive processes reduces the cost of their present product to a certain class of producers, say cotton goods manufacturers. They extend their operations to take advantage of the lower cost. To do so they borrow. The cash reserve of the bank is diminished, relatively to liabilities, and perhaps absolutely by cash withdrawals to pay wages, etc. Soon, however, the diminished reserve causes a higher rate of discount, attracts cash deposits, and lessens the amount of exchange money. A new distribution of the available money supply between reserve and non-reserve is made, at a value which will perform the new volume of exchanges. Its value is thus kept pressed close to the changing demand for it, as represented by the volume of goods offered for it.

The greater the degree of cancellation by credit transactions, the smaller the normal reserve needed. The marginal utility of money falls, therefore, for a given volume of exchange, as the credit mechanism becomes more refined. Or, a larger volume of business may be done on the same reserve at the same, or only slightly raised, prices. This influence also appears as a stimulant of the upward trend of prices of which the expansion of credit is, considered by itself, the result.

From what has been said it seems that we may conclude :

1. That the introduction of a credit mechanism where none existed would increase the efficiency of the existing money supply, and make possible, at first, a larger volume of exchanges on the old price level, or possibly, on a lower one ; or later on a higher one, which, however,

would not be raised in so great a proportion as the increase of the volume of business.

2. Similarly, where the credit system is already in operation, a new supply of money may either simply displace some credit exchanges with, possibly, no change in the price level or the volume of business; or, more likely in a progressive community, the credit system will cause the whole money supply to be so apportioned between reserve and direct money payments as to increase the volume of exchanges done by both, on a higher price level at first, but gradually falling as the volume of credit transactions grows.

3. That the expansion of credit transactions tends to raise the value of an existing supply of money and thus retard the upward trend of prices, of which the credit expansion is normally the result. But at the same time, the credit system gives a higher efficiency to part of the money supply, so that the net result of the growth of credit may for a time be a rise of prices. Ultimately, however, the demand for more reserve raises its marginal utility.

4. The greater the ramification and refinement of the credit mechanism, the less the money needed for a given volume of trade.

5. Under modern methods of production with large fixed capital, the credit system exerts a steady influence to depress the price level.

6. These results are accomplished by apportioning the money supply in changing proportion between reserve and direct payment money in favor of the reserve money, to effect the increasing volume of payments, with the result that the marginal utility of money gradually rises, but not so rapidly as the volume of business.

CREDIT AND THE VALUE OF MONEY

A. PIATT ANDREW

The generally accepted views in regard to the value of money, as we have seen this morning, have been subjected of late to many emendations and have been arraigned upon many charges. I propose that we examine some of these emendations and look into a few of the charges. For an unconscionable period men have supposed that the value of money was importantly influenced by its quantity, but to-day we observe that there are many who are inclined to attribute to that factor a quite subordinate influence in determining money's value. For a long time, too, it has been believed that the value of money was largely affected by the amount of available credit, but this assumption has also recently been called in question.

As regards the influence of the quantity of money, I think I am safe in saying that no one goes so far in his opposition to the traditional view as to deny that under certain conditions it may be one factor in determining money's value. Even Professor Laughlin, who in his "*Principles of Money*," and in his address of this morning, has argued so ingeniously for the falsity of the quantity theory, has admitted its applicability in the case of countries with an inconvertible paper or a limited coinage (*Principles*, pp. 314, 380). He even allows that under ordinary conditions of free coinage "the value of the standard can be influenced by supply" (p. 339, Note). "No one doubts," he says, "that an increased supply of the standard metal would affect its

value, and hence affect prices" (p. 327). And he regards it as evident, for example, that in the sixteenth century "the importation of specie . . . from the New World created perturbations of a serious nature in the value of silver, and consequently in the prices of all goods, wages and rents expressed in that standard" (p. 225).

On the other hand, there are none of the traditional school who claim that the monetary supply is the one and only influential factor. If every one admits that the quantity of money sometimes affects its value, every one is likewise agreed that other factors also influence it. The disputed questions concern the limitations within which changes in the quantity of money are of consequence, and the comparative importance of the other factors.

Traditionally it has been believed that the value of money is affected not merely by its abundance, but also by what has been variously termed its "mobility," the "quickness of its circulation," the "frequency of its exchange," or its "efficiency." Here at the very outset not only does one encounter to-day considerable diversity of opinion as to what is intended by these terms, but one recent writer, Mr. Carlile, in his "*Evolution of Modern Money*," has ventured to conclude that "by no sort of twisting and turning can any valid signification whatever be attached to the theory" (p. 166). One must admit that fluctuations in this factor seldom exert an observable influence over the price level. A decreasing activity in the circulation of money usually but reflects a simultaneous decrease in the volume of transactions to be settled, and a brisker circulation of money

on the other hand, generally only accompanies a brisker circulation of commodities. Although the money supply might appear to be virtually enlarged through the increase in its efficiency, the new supply is apt to be simultaneously devoured by a correspondingly large demand, and the effect upon the price level of such changes is therefore in most cases not to be discerned. It does not follow, however, that this factor is a negligible factor. Its effects may exist latently, and by appealing to them we are helped in explaining certain otherwise anomalous situations, as, for instance, where the stocks of money in different countries do not vary with their trade, or as when prices do not fluctuate within a given country with changes in the amount of business done.

The notion that the value of money tends to be influenced by the amount of "money work" or business done, though similarly venerable, has also been disputed. It used to be thought that any considerable changes in the volume of transactions to be mediated, especially if due to enduring causes, would tend to affect the general price level. Fluctuations in the mass of business represented changes in the demand for means of payment, and as the demand increased, prices would be apt to fall, as it decreased they would tend to rise. Here again is a factor whose effects are often counterbalanced by other factors working in a contrary direction, and whose influence has for that reason sometimes been called in question. Variations in the volume of trade, it has been contended, do not involve proportional changes in the demand for standard money, and Professor Laughlin assures us that there is "no direct relation between

them " (p. 346), implying, it would seem, that changes in the amount of business exert no direct influence upon money's value.

Now we may admit that variations in this factor are apt to be offset, as has just been seen, by a greater or lesser frequency in the employment of money, or may be partially met by a larger or smaller use of money substitutes, and that in such cases they may induce no change in the actual money employed, and at the same time may be followed by no corresponding alteration of the price level. We are not obliged, however, to conclude that a tendency is absent because its action is counteracted and its effects concealed. The change in the demand for means of payment, though met sometimes by a different efficiency in the existing money supply, and sometimes by a variation in the amount of money substitutes employed, still unquestionably remains a contributing factor not to be left out of account in explaining any concrete variations in general prices.

When we turn to the subject of credit we reach a field in which still greater discords of opinion prevails. No one can very well deny that credit agencies serve in vast proportions as media of exchange, but upon scarcely any other question touching credit does anything like harmony of thought appear. Almost every writer on the subject has his own peculiar views about its influence over money's value. We are informed by some that "credit in whatever shape given" acts upon prices (Mill, Bk. III, Ch. XII, § 1); by others that credit influences the price level only when embodied in transferable forms; by still others that credit normally does not affect prices at all (Laughlin, p. 98); and there are

many intervening shades of opinion. Concerning the conditions which govern the extension of credit, a similar disparity of thought exists. By some we are told that it is subject only to the will of bankers and traders, by others that it is governed by "the value of marketable goods or property owned by borrowers" (Laughlin, p. 93). By many respected experts it has been thought to be conditioned by the monetary supply, yet there are others equally respected who assure us that "any amount of credit may be created and extinguished without any relation to the quantity of money" (McLeod, p. 734; Laughlin, p. 85).

Here stand posed the two questions about credit most vitally significant for monetary theory, questions that intertwine with each other and are only partially separable in thought; first, as to the conditions under which, if ever, credit may influence prices; and, second, as to what factors limit its extension.

Unless the value of money is determined by tendencies different from those governing the values of all other commodities, it depends upon demand and supply, and under supply is included not merely its own quantity, but that of all its possible substitutes as well. Very much as the value of American winter wheat depends not alone upon its own amount, but also upon the output of American spring wheat and upon the size of the crops harvested in Argentina, Russia, India, and elsewhere, so the value of money must hinge not alone upon the supply of gold and silver, but also upon the amount of all the other agencies and contrivances capable of mediating exchange. Any considerable increase in the media of payment, whether in the form of money or of other instruments which may be used in place of

money will tend to lower the value of the individual money unit, quite as an enlargement in the crops of South America or Europe will tend to lower the value of an individual bushel of wheat from the Dakotas. The multiplication of money substitutes may of course run parallel to an increase in business, and the two movements may cancel each other without leaving any traces upon money's value; but in a similar way an expansion of the wheat crop in Argentina may accompany an enlarged consumption of bread stuffs and register no effect upon the price of Dakota wheat. One can scarcely see why it should be more necessary in the one case than in the other to insist upon what would seem to be an obvious proposition that the use of substitutes tends to affect value, even though the evidences of the tendency are frequently, perhaps "normally," concealed by counteracting forces.

Among the devices commonly spoken of as money are usually included along with coin a number of other means of payment which circulate similarly without friction—devices which "pass by simple delivery," as McLeod puts it, meaning that they are accepted freely without endorsement or any particular scrutiny. Credit contributes a number of such devices, like the notes of the government treasury and the legally secured notes of the banks, which in certain respects are even more convenient and efficient means of payment than the coins, and which in popular language and in the writings of many economists are classed as money. I doubt whether any one could be found who would deny that the expansion and contraction of these devices as surely tends to raise and lower prices as fluctuations in the supply of coin.

Credit also contributes other instruments, equally capable of representing and transferring purchasing power and of mediating exchanges, which are not usually designated as money. One does not need to dwell in our day upon the importance as currency of the arrangements furnished by the banks. With their elaborate machinery for the cancellation of indebtedness through checks, book transfers, and clearing-houses, they have evidently created an independent agency of settlement quite as available for mediating business and for consummating transactions as money itself, and in proportions relatively more extensive. Last year the deposit accounts subject to withdrawal by check of such banks as reported to the Comptroller of the Currency aggregated a total three times as large as the sum of all the money of all kinds circulating throughout the country, including the bank reserves themselves. When compared with this vast total, all the other non-monetary media of exchange mentioned in the books become insignificant. The bills and notes of merchants which are occasionally transferred by endorsement in settlement of purchases, the bonds, stocks, postal notes, etc., which are sometimes described as assisting in accomplishing payments at a distance, the miscellaneous devices which have been used in critical emergencies need be mentioned only as *obiter dicta*, and do not require to be taken further into our reckoning.

It is difficult to grasp the logic by which the influence of the check and deposit system upon prices has sometimes been denied. It is hard to see how any one can assume, as President Walker (*Q. J. E.*, VIII, p. 67), and Professor Laughlin (*Principles*, pp. 102-3), appear

to have done, that the demand for the means of exchange furnished by the banks is distinguishable from the demand for monetary means of exchange, and expands and contracts independently of it. If checks and deposits accomplish work which would otherwise devolve upon money, and this is not denied, then the demand for them is not a distinct and separate demand, and changes in their amount or in the extent of their employment must tend to influence the value of the money in whose stead they are employed.

So much for the influence of credit when it gives rise to transferable instruments. Government notes, bank notes, and bank deposits are all means of complete and final payment, able to settle transactions definitively without any even eventual resort to coin. Credit in such cases furnishes thorough substitutes for coin, capable like coin, of mediating exchanges by transfer from hand to hand. We are bound to believe that fluctuations in the resort to such varieties of credit tend to affect prices. Credit exists, however, in other forms which do not circulate, and here the relations are not so clear and require more careful analysis. There are those who accept the dictum of John Stuart Mill that "what acts on prices is *credit* in whatever shape given and whether it gives rise to any transferable instruments capable of passing into circulation or not" (Book III, Ch. XII, § 1). They call attention to the familiar methods of obtaining goods and services and of temporarily settling transactions by accepting bills of exchange, signing promissory notes, or by the mere inscription of indebtedness upon dealers' books; and they tell us that purchases effected provisionally in such ways by pledging a future transfer of real means of

payment, "create just as much demand for goods and tend quite as much to raise their price" (Mill, Bk. III, Ch. XI, § 3), as purchases made with ready money or other means of final settlement.

There is a fundamental difference, however, between the circulating forms of credit and those which for lack of a better name we may perhaps call "fixed." The former are real means of payment, the latter only means of postponing payment. While circulating credit takes the place of money, fixed credit only increases its use at a subsequent date, for bills, notes, and book entries all bring ultimately in their train a demand for real means of payment to complete the transactions which they have helped to initiate. Sooner or later they must be redeemed in means of final settlement. On this account we may readily imagine different situations in which the existence of what I have perhaps inaptly called "fixed" credit might result in no change in the price level, or again might instigate a positive decline, while in only rare cases would it be likely to stimulate a rise. Let us consider examples of each of these three situations.

Suppose, in the first place, the new purchases being made "on credit" during a given period just balance the old debts coming due. In such a case the addition to current means of purchase made by the newly incurred obligations will be cancelled by an equivalent subtraction of other means in settlement of past purchases. As many means of payment will be withdrawn from current use for the redemption of past pledges as are being economized on the other hand by the use of pledges for the future; and the postponing devices will

not increase even temporarily the media of trade. The amount of currency available will be no greater on account of their existence, and the price level, we may conclude, will stand no higher than it would have stood had no credit whatever been employed. In other words, the existence of no matter how many millions of credit in these forms in a community, provided the amount is not increasing, will not make the price level higher than it would have been had credit never been given at all.

Of course it must be at once admitted that while credit in these forms does not of itself serve as a substitute for money, it frequently helps in settling transactions by *other* means without the use of money. The resort to book credits in particular sometimes economizes money by making possible a sort of prolonged barter. Those who are alternately buyers from and sellers to each other are enabled in certain cases by book entries to offset their mutual purchases and settle them by cancellation. This for instance happens in rural districts where farmers are credited on the books of a dealer with the value of the produce they bring in and then in turn secure their supplies on the basis of these credits. Book credits render a further and more important service in economizing money by encouraging the use of checks and deposits. Small purchases, which if paid for from day to day, would be more conveniently settled by money are, when charged, collected on dealers' books and eventually settled still more conveniently in a single lump by check. Purchasing upon account thus without settling transactions, makes it easier in the end to settle them with checks; and book credits, without themselves being substitutes for money,

perform an important function in promoting the use of real substitutes.

In such indirect ways untransferable credit renders considerable assistance in effecting the exchange of goods without the use of money; yet as a general description of the direct influence of such forms of credit our original statement still holds good. In the cases just cited it is the check which actually makes the payment and not the book entry, and it is the check and deposit system, not the system of postponing payments, which increases the community's media of exchange. Given a community with a certain amount of money and a certain quantum of money substitutes, and given certain rates for their circulation, the resort to credit in its fixed form will accomplish no direct saving of money and no increase even in the provisional means of purchase, if the new debts being assumed only equal the old debts coming due.

Indeed one can carry this idea to a conclusion still more strikingly at variance with commonly accepted views; for, not only is it true that credits which are not increasing make no addition to the means of payment and exert no influence over prices, but it will further be observed that if the new grants are not equivalent in amount to the old ones which are maturing, the means of payment available for use to-day will actually be less than they would have been had credit in these forms never been employed at all, and prices will tend to drop even below the point which they would have attained had only means of final settlement been used. If a greater quantity of money (or its substitutes) is being withdrawn from present use to redeem past credits and settle past transactions, than the quantity of credits now

being created, the result will obviously be an actual reduction in the amount of money currently available. If this be true then we should expect a fall in prices below the level normally supportable by the money in the country. The supply of currency will really be *diminished* and prices will really decline for the very reason that resort has been made to these postponing devices, and this will be true although vast amounts of new credit are still being created.

The only conditions under which the postponing devices can produce effects like those resulting from a real increase in the currency, and can induce and maintain a higher range of prices, is when they are increasing in quantity continually and by at least equal successive increments. If, for example, we suppose an extension of book credits amounting to, say 20 per cent., to have taken place, and prices to have risen proportionally, this new price level can only be maintained, if at the end of the credit period new accounts are opened, not merely to the amount of those then maturing, but to that amount with still another 20 per cent. additional. As these mature, if prices are not to fall, the latter credits must be reduplicated with yet another 20 per cent. increase. And so the process must continue. If the postponing devices are really to operate like money substitutes, and are to produce similar effects—that is to say, if they are to support continuously an elevated scale of prices, it can only be, by extending their volume cumulatively.

A continuous or progressive rise in prices according to these principles will only result from the use of book credits and postponing devices, when their volume is expanding, not merely by the progressive addition of

uniform increments, but by the accumulation of ever *enlarging* increments, and such conditions must inevitably be of brief duration. They are doubtless sometimes realized during highly speculative periods when buyers, in expectation of a rise in prices, resort to book credits and the other postponing devices with greater and greater freedom in order to extend their purchases. Then as each rise in the price of goods stimulates the anticipation of a further rise, people use their credit more and more restrictedly, and unquestionably at such moments most persons have a more extensive credit to which they may resort because of the larger gains which they seem to be realizing. With such conditions prevailing, through the swiftly expanding employment of deferred settlements, it is conceivable that there may ensue a steady mounting of the general price level, but only for a limited period.

Credit cannot be indefinitely expanded, and an advance in prices of this character cannot be long continued. The enlargements of trade through the action of the means of temporary settlement, even though these means are regularly renewed and extended, eventually approach their limit. As soon as the volume of credit ceases to increase by progressively expanding conditions, prices will, as we have seen, stop rising. And when eventually credit reaches its maximum and ceases further to increase, other things being equal, prices will drop to the point where they would have remained had credit never been employed at all. Prices will fall in this way, although there may be hundreds of millions of credit in existence in the form of bills and notes and book accounts, all of which are being renewed or replaced as they mature. If moreover, as very frequently

happens in such cases, credit becomes actually contracted—if new obligations cannot be entered upon on the same scale as formerly—prices will tend to fall even below the level that would be normally supported by the money in the country. The credits coming due will then exceed those being created and currency will be diverted from the purchase of present goods to payment for goods bought in the past. As long as this situation continues the general level of prices will tend to remain below that which the monetary circulation of the community would have been able to maintain alone if no credit had ever been employed.

Our general conclusion, then, with regard to the influence of credit is that it can only serve as a substitute for coin when it exists in transferable forms. The fixed forms of credit cannot definitively settle payments, and they fail accordingly of making any real or permanent extension of the currency supply. For a limited interval they may make possible a more ample trade or may support a higher price level, but in the long run they only serve to enlarge the subsequent demand for actual currency. They are in no sense substitutes for money, and only rarely and temporarily does their existence tend to lower money's value.

Our second question concerned the conditions which limit the extension of credit, and our analysis of the various forms in which it exists has simplified the reply. We have seen that credit normally affects prices in only two forms: *First*, fiduciary money, meaning bank and government notes (with, in most countries, the silver and copper coins), and *second*, the check and deposit system of the banks. We can very well pass

over the conditions limiting fiduciary money. They scarcely lend themselves to general treatment, being for the most part legislative restrictions differing from country to country and changing from time to time. The deposit system, on the other hand, is less tightly bound by laws, and our inquiry regarding the limits of credit thus virtually resolves itself into an analysis of the influences which govern the use of checks and deposits.

Ever since men began to think about banking, some three hundred years ago, there has been a succession of writers who believed that the sound extension of banking credit was only limited by "the value of marketable goods or property owned by borrowers." This was the theory of most of the projectors of English banks in the 17th century (*Q. J. E.* II, 482, ff.). It was the belief of the numerous advocates of land bank schemes in the American colonies. It was the opinion of the directors of the Bank of England at the time of the Bullion Report, as well as of others who opposed the repeal of the Restriction Act. The theory survives to-day, emerging where one would least expect it, and supported by the same arguments as were used in its behalf a century and two centuries ago. We hear to-day, as men heard in the days of John Law, or of Chamberlayne's Land Bank, or in the days of the Assignats, or of the Restriction Act, that "goods, not money form the basis of credit operations" (Laughlin, p. 84); that "any amount of credit may be created . . . without any relation to the quantity of money," (p. 85) and that the extension of credit is sound and normal "so long as the claims held by the bank are based upon actual and salable property" (p. 93). We are assured that "the limit to the increase in legitimate

operations is always expansible with the increase in the actual movement of goods," and that any "concern excited by such expansion is groundless, so far as it is based upon goods, or restrained within a safe estimate of the value of these goods." (p. 82).

The objections to this theory have been too often stated in discussions about bank notes and paper money to require elaborate reiteration in the case of bank loans in the form of deposits. Credit in its various forms may, with the consent of the creditor, be exchanged for and cancelled by, other credit or ordinary commodities, but it always purports to be payable in money, and if the creditor so desires, it must be actually so redeemed. It is preposterous then to assume that credit can be issued indefinitely upon the basis of goods without any regard whatever to the quantity of available money in which it is likely from time to time to be presented for redemption. There is good reason to believe in fact that long before all of the property and goods in a community could be "coined by the banks into present means of payment," credit would be presented to them in overwhelming amounts for settlement in cash. If the banks were to undertake to create either notes or deposits to the extent of the value of all goods and property in the country, bankruptcy would be the inevitable outcome, for the ensuing rise in prices and adverse balance of trade would instigate a demand for gold for export which would sweep every remnant of specie from their reserves. Bankers can no more lend their credit in the form of deposit accounts without regard to their cash reserves than they can in the form of notes. Either course involves disaster.

But one can go further. The fundamental idea in the two cases not only is unsound as a matter of policy,

but it involves impossibilities in its very conception. It is incredible that bankers could, even were they so intentioned, create new means of payment to the extent of the money value of all goods and property. The money values of things depend upon the amount of the means of payment; and every enlargement of the latter's supply, other conditions remaining unchanged, involves an increase in the former's value. Every new extension of credit, though based upon the money value of goods, would tend to raise the price level, and each elevation of the price level in its turn would justify a further extension of credit. The two movements might continue pursuing each other until eternity and yet the aggregate value of the means of payment would not become co-extensive with the money value of all property. The alleged limitation of bank credit by "the value of goods and property owned by borrowers" is from every point of view delusive. It is not only untrue; it is impossible.

That there is some sort of quantitative relationship between the cash reserves of the banks and the possible extension of their credit in the form of deposit accounts, very few are apt to deny; but that this relation varies from time to time must also be admitted, and that the maximum use of deposits is often not attained is equally obvious. There are really two distinguishable questions concerning deposits here involved, on the one hand as to the factors limiting the potential extent, on the other as to the factors limiting the actual extent of their employment.

If checks always operated by means of book transfers and the clearing house, as they habitually do in most countries to-day, there would be no limit to the possible expansion of the so-called deposit accounts until the

law intervened. If no one was likely ever to ask to have checks redeemed in money, bankers could lend accounts on their books indefinitely. As things actually are, however, depositors are sure sometimes to need money, and the banker's power to open new accounts is for this reason effectively restricted. Depositors are continually wanting to draw out money for small everyday expenditures, or as change for the cash drawers of their shops and stores. At periodic intervals, as during the weeks of spring equipment and at harvest time, peculiarly large amounts of cash are wanted, and in emergencies of disturbed confidence banks are subject to still further drains. Even if they were freed from these contingencies, any undue expansion of their credit would be apt to stimulate a higher price level and an unfavorable balance of trade, and then with the need of specie for export, checks would inevitably be presented for cash. Evidently for all such cash withdrawals, usual and unusual, the banks must be prepared, and the possible expansion of drawing accounts upon bankers' books therefore depends upon the amount of money in their reserves, taken in connection with the proportion of checks which are likely to be presented for settlement in cash.

This proportion is plainly not a constant factor; it varies from country to country; it changes from season to season; it fluctuates from year to year, according to the condition of a country's foreign indebtedness or its domestic credit. It has grown slowly lower with the gradual extension of modern banking methods, and looking over a considerable lapse of years one can see that the potential limits of fiduciary currency have enlarged more rapidly than the quantity of money. But given a particular locality in a certain reach of time,

let us say a certain decade, one can estimate with considerable exactitude the proportion of deposits which must be covered with cash in order to meet all of the demands, casual, periodic, or extraordinary, which may be expected to arise. It is this proportion which fixes the limits of the deposit maximum, and, given such a proportion, one may then say that an increase in the reserves will tend to enlarge, and a decrease tends to contract the potential extension of deposits.

If the actual expansion and contraction of bank credit always coincided with the potential limits there would be a very close correspondence between changes in the quantity of money and changes in the amount of credit. In reality the relation is more or less flexible. It is only in active and prosperous periods that banks extend their accommodation to the outermost limits; and as cycles of trade recur with their more or less regular succession of phenomena, there come moments when credit is apt to fall far short of its possible dimensions. In the periods of general liquidation such as usually follow commercial crises, even though an increase in the country's monetary supply does take place, the money substitutes will not increase. Bank reserves may then expand without any concomitant expansion of loans and deposits. This was conspicuously the situation in the United States in such years as 1885 and 1894 when, taking the associated banks of New York as an example, the percentage of their reserves to deposits averaged throughout those years above 38 and 37 per cent. respectively, or more than 10 per cent. above their supposedly normal minimum.

Such a situation, however—and this is from our point of view the essential consideration—never endures for long. An increasing supply of money and increas-

ing bank reserves in a period of depression may not lead immediately to an expansion of credit, but they pave the way for its eventual expansion when prosperity returns. It is unprofitable for the banks to hold a surplus of idle cash, and the business world, under normal conditions, is looking for new capital. Sooner or later, if the reserves continue enlarged, with the renewal of confidence and activity, loans and deposits are certain to rise to their new potential maximum. It is to the interest of all concerned that they should do so. While, then, there is a measure of elasticity in the credit currency, so that in every cycle of trade there are fluctuations in the monetary supply that do not reflect themselves in the amount of credit, nevertheless the quantity of money held by the banks sets a limit beyond which credit cannot be extended, and in the course of every cycle this limit is actually reached. *In the long run, as apart from the cyclic oscillations, the quantity of banking credit is governed by the quantity of money, and each permanent addition to the monetary supply tends in the end towards an increase of credit. We are thus brought back to the traditional theorem with which this paper started, that the value of money in the long run depends most importantly upon its quantity. Its quantity affects prices not alone when money enters the circulation, but also when money is gathered in the bank reserves, because the amount of the only kind of credit which serves effectively as a substitute for money depends primarily upon the extent of these reserves.*

The theory of money is many-sided and presents many paths of approach. In the foregoing pages we have been concerned with the value of money itself, not with the value of the material of which it may happen to be made. The principles stated have referred to

money in general and of whatever sort, regardless of whether the standard was one of coin freely minted, or of coin of limited mintage, or of irredeemable paper. It has been insisted that the value of money is importantly influenced by its quantity, but nothing in the argument was intended to deny the counter-proposition which to-day is so frequently made that in the case of a freely coined metallic currency its quantity is in turn affected by its value. In the case of gold, the amount that will be produced, the amount that will be imported, and the amount that will be coined evidently depend upon its value. A change in the general price level in such a case obviously is apt to be the cause as well as the effect of changes in the quantity of money. It is equally true in the case of wheat or iron or cotton or any other commodity. The value at a given moment depends upon the quantity that has been produced, imported and manufactured in the past, yet at the same time the present value acts as cause with regard to the quantity to be produced, imported and manufactured in the future. Value is thus almost always the cause as well as the effect of changes in quantity. This in no way contradicts the principles which it has been the purpose of this paper to defend.

DISCUSSION

ON PAPERS OF LAUGHLIN, KINLEY AND ANDREW ON
THE THEORY OF MONEY.

WILLIAM A. SCOTT: I agree with the essential features of the theory of prices expounded by Professor Laughlin, and explain the phenomena of prices in a manner satisfactory to myself only by drawing sharply the distinction between the standard of value and the medium of exchange, as well as by viewing prices as dependent directly on the former and only indirectly and remotely on the latter. In the explanation of the value of the standard, the *starting-point* and *central fact*, in my opinion, are its valuation as a consumers' good in non-monetary uses. According to my understanding of the matter, the medium of exchange affects general prices only because the standard of value happens to constitute one of its elements. But this is not a necessary condition of things, and any theory which proceeds upon the assumption that it is necessary will fail to give a true explanation of prices.

The real question brought before us is precisely how prices are affected by the service of the standard as an element of the medium of exchange. As I understand it, Professor Kinley's view is that the credit element of the currency rests upon the standard element in the sense that there is a point beyond which the former cannot be extended without exerting such a pressure upon bank reserves that the demand for the standard will increase and its value rise. While Professor Kinley

is unable to tell us precisely where that point is, he feels certain that it is some place and that it is located by the expansion of credit. On this subject I cannot share his conviction. I do not believe that his explanation of the relation between credit and bank reserves is true to facts; neither do I believe that the safety of our credit system depends primarily upon the proportion that exists between bank reserves and the volume of credit instruments. In order to make clear my meaning, I may perhaps be permitted to state briefly the theory of credit which I hold.

Credit is the means by which we make possible exchanges in which a period of time elapses between the transfers of commodities. A transfers a good to B, who will make the counter-transfer only after the lapse of some time. A credit instrument of some sort bridges over this period by affording A legal security that the counter-transfer will in due time be made and by enabling him to obtain, if he wishes, means of payment in the interim. The process of exchange which was begun by A's transfer to B and the creation of the credit document is completed either by a counter-transfer of goods when the credit instrument matures, or earlier, if A chooses to use said instrument as a means of payment in its original or in a modified form. The important fact to note is that goods are ultimately paid for by other goods, the credit being simply a step in the process. Now the volume of such exchanges does not seem to me to bear any necessary relation to the volume of those effected through standard or any other form of commodity money, nor does their safety seem to me to depend primarily upon the amount of standard money in existence or in the bank reserves. It depends rather

upon the successful running of the industrial machinery, upon the saleability of goods and the sound judgment and honesty of business men. Bankers need to keep reserves, not primarily because a large volume of exchanges is being conducted through credit, but because their customers regularly conduct some exchanges by means of commodity money and look to them to supply what they need. The amount of commodity money they find it is necessary to keep depends upon the amount so used regularly, but this amount has little to do with the volume of exchanges effected through credit. It does not even bear any fixed relation to the balances which have to be settled between banks, cities and countries. These can be and are more often settled by credit arrangements. Bankers also need reserves to fall back upon when credit is impaired, but at such times their efficiency is, at the best, very limited. The most useful means of meeting such exigencies is the more extended use of those forms of credit which are not impaired and which can serve as means of payment. If the credit has resulted from genuine commercial transactions, the successful completion of which depends simply upon the running of our industrial machinery in the usual fashion, it will be as safe as possible, whether bank reserves be large or small in proportion to its volume; under other circumstances it will be unsafe and dangerous, no matter how small its volume or how large the reserves. No amount of reserves can undo the evils of false credit or restore the losses of its victims. When business men indulge in such practices on a large scale, disaster will follow as surely as night the day. When they do business on the basis of sound credit, they can safely conduct

almost any amount without exerting undue pressure upon bank reserves.

Holding this view of credit and of its relation to bank reserves, I cannot but feel that Professor Kinley's intricate and ingenious reasoning regarding the marginal utilities of the various elements of the medium of exchange and the striking of an equilibrium between them is mostly beside the mark. I consider the doctrine of marginal utility very useful in the explanation of the manner in which we value the goods directly applicable to the satisfaction of our wants, but I do not believe we can get much assistance from it in the explanation of the relation between so-called social needs and the instrumentalities which satisfy them. Society is not a person which feels needs and applies goods to their satisfaction after the manner of men of flesh and blood. The term social need is simply a convenient but inaccurate expression for the resultant effect of the real needs felt by actual persons, and the means of their satisfaction must be analyzed, and reduced to the goods actually used by actual persons before we can begin the study of their valuation. When this process has been applied to the medium of exchange, we shall find that we have to do either with consumer's goods which are bartered for other consumer's goods and then rebartered, or with a mere process which enables us to dispense with this three-cornered act of barter. When we exchange one consumer's good for the others, which Professor Kinley calls commodity money, we proceed upon the basis of their value as consumer's goods. There is nothing in the situation which requires or suggests any other basis of procedure. When we dispense with the commodity medium there is no intermediate good to

value. We have now to do with credit instruments, the valuation of which depends upon entirely different principles.

The use of a consumer's good as an intermediary in exchanges withdraws some portion of it temporarily from its consumption uses and affects its marginal utility in those uses in precisely the same manner as storing it in any other form. The marginal utility of wheat and of all the products into which it enters is affected by storing it up in the ware-houses and temporarily keeping it away from the active market. In like manner, the marginal utility of gold is affected by its use in public and private reserves and as a circulating medium. The fact that gold possesses a very high degree of durability and that the quantity of it is very large is, as Professor Laughlin has shown, important in the explanation of the phenomena of its value, but it does not alter the principles upon which its valuation is based or the essential features of the valuation process.

Before closing I should like to say a word regarding the distinction between fixed and circulating credit which Mr. Andrew has drawn. I do not regard this distinction as important in the discussion of the theory of prices or of the part played by credit in exchanges. According to my understanding of the matter, fixed credit is frequently the basis of circulating credit and may be transformed into it almost at will. The two classes are not, therefore, mutually exclusive. They overlap to the extent that the owners of fixed credit wish to change it into the circulating form. It is, in my opinion, also a grave mistake to suppose that the fixed forms of credit do not assist in the mediation of exchanges, and that they *necessarily* occasion a demand for the circulating

form or for commodity money at the date of their maturity or at any other time in their history. As before explained, they bridge over the gap of time intervening between the first transfer and the counter-transfer which completes the exchange. The goods sold are ultimately paid for by goods bought or sold by somebody else and not necessarily by commodity money or the circulating forms of credit. The deferring of a payment frequently renders the use of money in any form unnecessary. This is sufficiently apparent in the simple form of book accounts, but it is equally true in the case of the more refined and more complicated forms of credit.

The actual facts regarding the relation between the credit and commodity portions of currency and between the medium of exchange and prices seem to me to be so obscured by the habits of thought and predilections introduced by the old quantity theory that I almost despair of anyone who approaches the subject of prices from that point of view and devotes his energies to attempts to save some remnants from the ruin to which that theory seems to me to be doomed. However, I welcome discussions such as Professor Kinley has given us in this paper and in his recently published book, because I believe that the elaborateness, intricacy and difficulty of such efforts will hasten the day when more economists will seek a solution of the problems involved by a simpler, less devious and less laborious route.

IRVING FISHER : It seemed to me as I was listening to these papers I could give assent to almost all the positive propositions, but dissent to many of the negative ones. It is possible to approach the money question from so many points of view that it seems ex-

tremely dangerous to deny a proposition as true simply because you know some other proposition to be true.

I think the papers presented harmonize more than they appear to do on the surface, and some apparent contradictions could be avoided and some confusion prevented if we bear in mind that value of money, at the outset, has two distinct meanings. Its marginal utility is one meaning; its purchasing power another.

When the causes operating on the side of money are considered, these subjective and objective values will run somewhat parallel; but when we consider the causes which affect goods, the effects upon the two kinds of value may be quite different. The two values are very simply related because, as we know, the price of any commodity, or price in general, is simply the ratio of two marginal utilities, and the price level is therefore nothing more nor less than the ratio of the marginal utility of goods to the marginal utility of money. If we could only assume that the marginal utility of goods would remain constant we could carry with us both of these values and change alternately from one to the other without confusion.

There are, then, two steps. First, to determine the purchasing power of money; and, second, to determine its marginal utility.

The purchasing power of money is dependent upon what Professor Newcomb calls "the equation of societary circulation." This is a form of the quantity theory, or, at any rate, it includes the quantity theory of money. It is that the amount of money work done by money is equal to the amount of money work done on goods. That is, that the volume of circulating medium multiplied by its rapidity of circulation on the one hand

is equal to the price level multiplied by the volume of business, (measured at a level of standard prices, and not at the level of current prices) on the other.

The price level thus depends upon three factors—quantity of circulating medium, its rapidity of circulation and the volume of business done. And if we can assume for a moment that the rapidity of circulation remains constant and the volume of business done remains constant, we should then arrive at the quantity theory, that the price level is directly proportionate to the circulating medium. In this sense, and this sense only, that theory seems to me valid.

But when we attempt to disprove this theory, as it would seem very easy to do by statistics, taking the price levels at different times and comparing them with the quantity of circulating medium, we find naturally no relation. To take an illustration, it is somewhat similar to the relation which holds true in an automobile between power and speed. The automobile maker will tell you when you buy an automobile that there is a direct relation between the power and speed. Yet if one were to sit in the automobile and watch the speed indicator and power lever and tabulate statistically the two, it would make two curves which would by no means run parallel. He might simply conclude, erroneously, that this relation did not exist, because other things have been omitted from the calculation. He might and would find many times that the opposite relation proves true, because the greatest power is put on when you are climbing hills and the speed is necessarily slow.

So, as Professor Laughlin has found in his *Principles of Money* a comparison between price level and quantity

of money, regardless of the velocity of circulation and quantity of business transacted, necessarily shows very little relationship.

The real problem to be settled is not the quantity theory which, in the sense that I have described, seems to me, should be accepted at the outset, but to proceed further and discover the other quantities in this equation. Of itself it does not fix the price level, because one equation cannot determine four unknown quantities. We need the other relations between the velocity of circulation, the quantity of business and the volume of currency; and it is the study of these relations which we should take up. And here statistical methods, it seems to me, may be applicable and should be followed out. Pierre des Essars, of Paris, has tried statistically to show what the circulation of bank deposits is, and his statistics are somewhat astonishing, showing that it fluctuates in the same place and between places. For instance, in Paris the velocity of circulation of the deposits varies from a turn-over of something like one hundred a year to two hundred a year, while in the banks of Greece and Portugal the turn-over is only from three to ten a year. In this country statistics are a pressing need. So far as I know there are none, except those few which have been privately collected. In New Haven the rate varied from fifteen to twenty-five, in one bank, while in a small town in California the turn-over was less than once a year, although the deposit was non-interest bearing.

We see, then, that we know practically nothing of the velocity of the circulation the variations in which, alone, are enough to make non-applicable any comparison between the quantity of money and the price level,

while the business transacted causes a further perturbation. A complete treatment of the subject taking account of all four variables has never yet been made.

THOMAS N. CARVER : It would probably be agreed by every one that under a system of free and gratuitous coinage of the standard metal, and under conditions where the standard metal was actually the basis of the circulation, the value of money of any kind would have to correspond to the value of the bullion of which the standard money was coined. In this country, for example, the value of a dollar must always be the value of 25.8 grains of standard gold, so long as gold remains the basis of our currency. Therefore, credit instruments of any kind could influence the value of money only in so far as they influenced the value of gold bullion, unless something should happen by which gold should cease to be the actual basis of circulation. Is it possible for the extension of credit to lower the value of gold bullion? It seems to me that if credit is in any sense a substitute for gold coin,—that is to say, if the business of the community can be carried on with less gold coin when there is a large extension of credit than would be necessary if there were no credit at all, it would logically follow that the use of credit must tend to cheapen gold. For if by reason of the use of credit less gold is needed in the currency than would otherwise be necessary, there is more gold available for use in the arts; and, the supply of gold in the arts being increased, this would tend, other things equal, to cheapen it, or to give less purchasing power to 25.8 grains of standard gold bullion. In so far as the use of credit cheapens gold bullion, it correspondingly cheapens

money. Now credit may be looked upon as an extension of the supply of money, if you define credit instruments as money; or, if you insist upon a narrower definition of money which would exclude credit, then credit must be regarded as reducing the demand for money. From either point of view the result on the value of money is the same.

But another question very fully discussed in the preceding papers is whether or not the law of demand and supply can of itself give a value to money greater or less than the value of the material of which it is composed. And upon this question I should like to state the following series of propositions without explanation or qualification.

I.

The value of money differs from that of an ordinary commodity,—bread, for example,—in the following particulars:

1. Bread derives its value,—i. e. purchasing power—from the fact that it serves its distinctive purpose—that of satisfying hunger; whereas money derives its power to serve its distinctive purpose—that of facilitating exchange—from the fact that it possesses value or purchasing power.

2. When the physical quantity of bread is increased, other things equal, the want to which bread ministers is better satisfied than it was before, even though the total value of all the bread diminishes; whereas an increase in the physical quantity of money does not satisfy the need for money any better unless the total value or purchasing power of money is also increased.

3. The demand for bread is a demand for a quantity of nutriment which bears a close relation to the number

of pounds; whereas the demand for money is a demand for a quantity of value or purchasing power, and this does not bear the same relation to the number of pounds of money which the nutriment of bread does to the number of pounds of bread.

4. The supply of bread is the quantity of nutriment available, whereas the supply of money is the quantity of value or purchasing power available.

5. Since the demand for money is a demand for value, and the supply of money is a supply of value, it must follow that the law of demand and supply can not apply to the determination of the value of money *in the same way* that it does to the value of bread, for:—

6. It is one thing to say that the demand for nutriment and the supply of nutriment together determine the value or purchasing power of a given quantity of that nutriment; but it is quite another thing to say that the demand for value or purchasing power and the supply of value or purchasing power together determine the value or purchasing power of a given quantity of that value or purchasing power.

7. Assuming that nutriment is the quality which makes bread useful, and that warmth is the quality which makes clothing useful, it would be quite proper to say:—

The demand for $\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{warmth} \end{array} \right\}$ and the supply of

$\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{warmth} \end{array} \right\}$ together determine the value of a given

amount of $\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{warmth} \end{array} \right\}$; but it would not do to say:—

The demand for $\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{value} \end{array} \right\}$ and the supply of $\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{value} \end{array} \right\}$ together determine the value of a given amount of $\left\{ \begin{array}{c} \text{nutriment} \\ \text{or} \\ \text{value.} \end{array} \right\}$

II.

On the other hand, money obeys the law of demand and supply after a fashion, for :—

1. The supply of gold distributes itself automatically between the arts and the currency just as the supply of any other commodity distributes itself automatically among its various uses, that is to say, in accordance with the law of demand and supply.

a. When for any reason there is a disproportionate share of gold in the currency as compared with the arts, it shows a tendency to leave the currency and go into the arts, yet this could not happen if it did not at the same time show a tendency to become dearer in the arts than in the currency.

b. *Vice versa.*

2. The only reason why gold maintains the same value in the arts and the currency is that it can be transferred from one use to the other without cost.

a. If the mint should charge a seignorage of one per cent., no one would take gold to the mint for coinage unless the coin would be worth one per cent. more than the bullion. This would reduce the supply of coin. If it were impossible for scarcity to give a value to coin somewhat greater than its bullion value, this seignorage would cause the coin to disappear altogether. But if

money is subject to the law of demand and supply, the seignorage would only reduce the supply of coin to that point which would give it a value one per cent. above its bullion value.

b. If it cost one per cent. of its value to reduce gold coin to bullion, no one would have any reason for doing so unless the coin were one per cent. cheaper. A disproportionate share of gold in currency, as compared with the arts, could not be automatically readjusted until the price of bullion had risen one per cent., or the value of coin had fallen one per cent. below its bullion value.

III.

1. There is no such thing as a law of demand and supply apart from the law of decreasing utility of successive increments of supply. Therefore the law of demand and supply can apply to money only so far as money can be brought under the law of decreasing utility, or of "final utility."

2. To say that the utility of a piece of money is the utility of the things which it will purchase is devoid of meaning. The question is: What determines the number of things which it will purchase?

a. If a loaf of bread will exchange for a peck of potatoes, it is because the final utility of a loaf of bread is equal to that of a peck of potatoes.

b. If a piece of money will exchange for a barrel of flour, it is likewise because the final utility of the money is equal to that of the flour.

c. To say that the piece of money will purchase something whose final utility is equal to that of the money, and then to define the final utility of the money *as consisting of* the final utility of that which it will purchase, is a crude case of reasoning in a circle.

3. The utility of money is the sum of the advantages which it affords to society, or the advantages of carrying on business with money rather than without money. The oft-explained disadvantages of barter give us, in negative form, a statement of the utility of money. Though goods are, as Professor Scott says, eventually paid for with other goods, yet it is found convenient to use money as a medium, and this convenience is a measure of the utility of money.

4. The final utility of money is the advantage which the final increment affords. Find out how greatly exchange is facilitated by means of this final increment, or how much easier it is to carry on the business of the community with this last increment than it would be with one less increment, and you have the measure of the final utility of money.

IV.

Some exchanges could scarcely be made at all without the use of money. Some could only be made with great difficulty, some with comparatively little difficulty, some could be made as easily without money as with it, and some could even be made more easily without it than with it. This gives us a law of decreasing utility of money. As much money as would enable the community to carry on those exchanges which could not be made at all without money, may be said to have a high degree of utility. As much more as would enable the community to carry on those exchanges which could only be made with considerable difficulty without money would have a considerable degree of utility. As much more as would enable the community to carry on those exchanges which could be made with very little difficulty without money would have a low degree of

utility, while as much more as would enable the community to carry on those exchanges with money which could just as well be carried on without it, could be said to have no utility at all.

Let us take a concrete case. A merchant could scarcely do business at all without *some* cash in his drawer. This is a need of a real man of flesh and blood. But the exact amount which he must have is not fixed. He may keep more or he may keep less. If more of his working capital is in the form of cash, he must have less in the form of goods on his shelves. If less is in the form of cash, he may have more in the form of goods. When it comes down to a question of final increments the question is: Will it pay better to have one more dollar in his cash drawer and one less on his shelves, or will it pay better to have one less dollar in his cash drawer and one more on his shelves? If he decides that the inconvenience of doing business with a little less cash would overbalance the loss from having a few less goods on his shelves, he will provide for the extra cash. This gives a view of the final utility of money to that particular man. Since something like this is true of each and every individual doing business, it is true of the business community as a whole.

H. R. SEAGER: I want to speak of two points that were brought out earlier in the discussion. Professor Laughlin has provided us with a very interesting diagram indicating, as he views the subject, that the fall in prices from 1879 to 1903 was not due to a scarcity of gold, but rather—gold having increased at an unprecedented rate during that period—to a plethora of goods.

Now, I agree perfectly with Professor Laughlin's diag-

nosis of what has occurred. What has occurred is undoubtedly a more rapid multiplication of goods than of gold, and yet I cannot accept his description of the matter—the statement that there has been no scarcity of gold. It seems to me that what we mean by “scarcity” or “plenty” in this connection is comparative scarcity or plenty. If conditions had been perfectly normal, if there had not been any special resistance to the increase of gold in comparison with the increase of commodities, what would have happened during those twenty years would have been a relative increase in gold, to keep pace with the enormous increase in commodities and fairly stable prices. What actually did happen was an enormous increase in commodities, a somewhat smaller increase in gold and consequently a fall in prices, due, it seems to me still, to the scarcity of gold, in the sense in which it seems to me we should use the term in this connection.

Professor Scott said that the important thing in connection with the use of credit is that ultimately goods pay for goods. It seems to me that for our purpose that is not the important thing. That is an important proposition, but it is just as true of the use of money as of the use of credit—ultimately, in connection with all exchange, goods pay for goods. Our media of exchange are simply devices for facilitating what is ultimately, that is, at last analysis, barter. But the question that we are considering, as I understand it, is the causes that determine the value of money. With reference to that problem, it seems to me still, that the important thing about credit under present conditions is that credit as a medium of exchange, is a promise to pay money; and that the use of credit in nearly every case involves some de-

mand for money, some demand for standard money. Professor Andrews has brought out very clearly the flexibility of the relation between credit and the demand for money, and Professor Kinley brought out the same point. I think we must all agree that there may be an increased use of credit without any increased demand for money, and yet it seems to me that the fundamental fact for our discussion is that credit is a promise to pay money, and normally involves a demand for standard money; that the expansion of credit normally means an increased demand for standard money to serve as a reserve, and in that way does operate upon the volume of money in the country.

J. LAURENCE LAUGHLIN : I wish to disclaim the explanation assigned to me by Professor Seager of the fall of prices from 1879 to 1900 as due to any plethora arising from over-production. My whole point was that there had been this enormous increase in the production of gold and we should have expected a fall in its value ; but we found that the increased productivity of our labor and capital had yielded more units of product than before and permitted the sale of each unit of that product at a lower price. The greater productivity of an industry, so far as price is concerned, simply showed itself in a lower price per unit.

Also, I would not hold, as Mr. Andrew suggested, that the case of unconvertible paper was one to which the quantity theory as generally understood applies. In my humble opinion that is one of the cases in which it does not apply at all.

I next should like to say just one word in regard to Professor Kinley's argument. I think it is a great misfortune, by the way, that we cannot have two or three

hours of discussion of these problems after we have had the papers. The point here is, how in actual fact the principles of demand and supply operate in working out exchange value between goods and money, and what the peculiar nature of demand for money is. It was Professor Carver who suggested the real question as that of working out the exchange value between the commodity and the bullion of which the standard money is made. We have a clear case here, it seems to me, and on that we ought to thresh the matter out.

If we were trying to get the exchange value between steel and wheat, if you had talked about the demand and supply of steel, and then continued your examination to the substitutes for steel, (as credit was a substitute for money), and if you had kept on discussing the price of steel and the nature of the demand for and supply of steel, you have not yet solved the whole problem of exchange value between steel and wheat. You must still discuss what influences were operating on wheat in order to get the exchange value between steel and wheat.

Now Professor Kinley's discussion of money and of credit went on the assumption that, if you could discuss the relative marginal utilities of the different media of exchange, you would be getting at the value of money. This is only one-half the problem. Moreover, so far as I could understand him, it was assumed throughout that when you withdrew a certain demand from a certain kind of money, or increased it, it affected the value of that money. That position carries with it an acceptance of the quantity theory, which I understand, in general, he rejects. According to his statement a limitation of its quantity changed its value. Now, even if we have settled the facts as to the supply of "money" we have not yet solved the problem of the exchange value be-

tween that money and other things. He has merely discussed the value of one product and its substitutes without touching what seems to me to be the pivotal thing existing in the relation between the standard, and the commodities with which we are concerned.

We are trying to solve the price problem or the question of the exchange ratio between something that we call "money" and these goods. The problem must be worked out in a more exact and clear discussion of the nature of the demand for money, and the actual price-making process by which the exchange ratio between these goods and that standard is reached.

HENRY B. GARDNER: The lines of argument by which I reach my own conclusions on this subject are somewhat different from any that have been presented to-day, and it is for that reason I should like to put it to test.

In the first place, the way in which the question is usually stated seems to me somewhat unfortunate. What determines the general level of prices? Much time has been spent in showing that the problem of general prices is simply the problem of a great number of special prices. If, instead of putting to ourselves the question of general prices, we consider the value of money, its exchange power in other commodities, we have simply the cause of the exchange value of a particular commodity. It does not alter the character of the problem, it alters the statement of the problem. The principal problem connected with the value of money is, Is there any peculiarly close relation between a change in the quantity and change in value—a pecu-

liarily close relation, as compared with the corresponding relation existing in the case of other commodities. which justifies us in applying to the value of money what is known as the quantity theory?

In the first place, we must recognize, for reasons that have been very clearly brought out, that we cannot solve this problem statistically. We must fall back upon general economic principles. And in doing that I have always felt that it was necessary to assume these two cases: First, the case of an exchange medium made up of standard money; and served the modification of an exchange medium made up largely of instruments redeemable in standard money.

Take the first case. What determines the value of money where an exchange medium is made up of standard money? If the quantity increases the value would tend to fall; if the quantity diminishes the exchange value would tend to rise. And right here I want to refer to a statement Professor Laughlin just made, that in considering this question of the effect of change in quantity on change in value, we must take account of the changes which have coincidentally been going on in connection with other commodities. We must rather assume that other things remain constant. In the illustration which he used we certainly have no right to take any account of changes connected with the production of wheat if we are trying to discover the effects of certain changes in connection with steel on the general purchasing power of steel. We must assume that conditions in regard to wheat and every other commodity have remained constant while this change has been taking place in steel.

In the case of most commodities we know perfectly

well that as the quantity increases, the value falls, but does not fall in proportion to the increase in quantity. The desire for the commodity is a limited desire. As its quantity increases its marginal utility falls rapidly, and in a short time we find that the total expenditure for that commodity has changed. It is only when the total expenditure for a commodity remains the same, without regard to the change in quantity of the commodity, that the value per unit will change in direct proportion to quantity.

The proposition is, then: Is there anything peculiar in connection with the demand for money—does the demand for money tend to increase or vary in direct proportion to changes in its value? Does the purchase power of the whole quantity of money remain constant without regard to changes in its quantity?

Now it seems to me, unless the change in the quantity of money has been of such a character as to destroy confidence, so that people who formerly exchanged goods for money are now unwilling to exchange goods for money, that in general the total purchasing power, the quantity of goods to be exchanged, remains the same without regard to the change in quantity of money—the total quantity of goods exchanging for the total quantity of money. Under these circumstances we have a commodity in which the value per unit must vary in direct proportion to the change in quantity.

WM. W. FOLWELL: In this discussion we have forgotten the payroll. That must be taken to account in any discussion of value. Adam Smith had an idea that there is a relation between labor and value, and after many years of study on this subject I am insensibly and unavoidably drifting to the position of Adam Smith.

F. R. CLOW: I wish to make just one suggestion. It would help us to make a distinction between the monetary unit and the standard of value. We have spoken all along as if the dollar, for instance, were identical with 23.22 grains of gold. It seems to me that that is not always true. For instance, on a Saturday at the appearance of an unfavorable bank statement, the prices lowered of the entire list of stocks. There you have an increase in the purchase power of the dollar. Now, did 23.22 grains of gold increase in value also in proportion to other commodities? Probably not. So we see the unit may vary without the variation in the value of the standard commodity.

Of course, that variation cannot last long. It cannot be very considerable. The connection is chiefly through the mechanical process of coining. But coining takes time, and therefore, the way is open for some variations of the unit from the standard.

DAVID KINLEY: Most of the points I had jotted down have been answered for me by preceding speakers, and there are but two points left to which I wish to call attention.

In the first place, Professor Scott's own language, while objecting to the theory that there is a relation between reserve and the volume of credit was a confession of the existence of such a relationship, because he talked about the "undue" expansion of credit,—undue with reference to the reserve,—and a relationship of some kind. Now all I claim is that there is a relationship of some kind. I did not assume to give a mathematical expression to it to-day.

The other point is simply this: I contend that the

point of view which I assume for my purpose, that of society as a whole, is entirely competent and logical as a basis of argument. The reason why I assumed it was simply this. We regard society as a community determining what method of perfecting and making its exchanges is for the time being the cheapest, and that enables us to say that the marginal utility of money at that point is its purchasing power. There is a point where the marginal utility of money, subjectively considered, and its purchasing power, are identical, and that is the point I preferred to speak from.

CAUSES OF THE UNION-SHOP POLICY

J. R. COMMONS

The open shop controversy, in its extreme form, is peculiar to America. The British labor delegates, two years ago, were surprised to see the bitterness of the American unionist toward the "scab." This feeling has its roots in conditions and history peculiar to this country. For three generations the American workingman has been taught that the nation was deeply concerned in maintaining for him a high standard of living. Free traders objected that manufacturers would not pay higher wages, even if protected. Horace Greeley, who, as much as any other man, commended the "American System" to wage-earners, admitted the force of the objection, but he held that socialism, or, as he called it, "association," would share the benefits of the tariff with them. But this must come through the workmen themselves. Some of them tried it. The communistic experiments failed. They tried co-operation, education, politics. Neither did these seem to reach the high aims of protection. Meanwhile they were discovering the power of the strike. By this kind of association those who could hold together found themselves actually sharing the benefits of protection which Greeley mistakenly predicted for his fantastic kind of association.

But the gains from strikes were temporary. The federal laws which protected manufacturers against the products of foreign labor, permitted them to import the foreigners themselves. In many cases strikes were defeated by the immigrants, and in many more cases the immigrants went into the shops to share the gains won

by the strikers, or gradually to displace them with their lower standards of living. With a unanimity never before shown the unions entered the political field and got the Chinese exclusion acts and the alien contract labor laws. These theoretically rounded out the tariff system, and they somewhat lessened the pressure on the skilled trades. But the amount of immigration itself was not lessened. Rather have the laws been evaded and the influx has swollen greater than before, while the sources have shifted to still lower standards of life. By a minute division of labor and nearly automatic machinery unknown in any other country, the skilled trades were split into simple operations and places created for the unskilled immigrants. The strike thus seemed likely to lose permanent results. The unions were unable in politics further to check immigration. Endorsing the tariff on products as a necessary first step they were left to enact their own tariff on labor. The sympathies of the American public were with them, but these sympathies, lacking the historical sense, have recently somewhat declined, when it is found that the union theory is that of protection and not that of free trade. The British unions are protected by long periods of apprenticeship. The non-unionist is only another Englishman who can be talked to, and whose class feelings are strong and identical with those of the unionist. The employers are not protected by a tariff, neither have they imported foreign workmen. Division of labor is not minute, and the skilled workman is not directly menaced by the unskilled. But the American unions have very little industrial or racial protection. Apprenticeship is gone, except as enforced by them against the protests of employers. In order to enforce this and other measures needed to keep wages above

the market rate, the unions found themselves compelled to enforce the rule that no one should enter the shop except through the union. Without this rule their efforts were nullified.

It naturally is objected that, in comparing the closed shop with the tariff, a corollary cannot be drawn from the laws enacted by government to the rules imposed by a union. The presumption is in favor of free trade, and only the sovereign power has the right to interfere, and that in the general interest. Where private associations restrict competition the act becomes conspiracy. But here the unions found that public sympathy and judicial decision have made an exception in their favor. While a combination to put up prices is illegal, a combination to put up wages was gradually relieved of legal penalty. It was felt that the laborer was the weaker party to the bargain; that the same public policy which would keep down prices to the level of domestic competition, would encourage the laborer to keep wages above the level of immigrant competition. Capital could take care of itself, and the capitalist who failed in competition would only drop into the ranks of wage-earners, but the laborer who failed had no place lower to drop. Consequently, while, on the one hand, the doctrine of protection to manufactures was gaining hold, on the other hand its corollary, the exemption of labor from the conspiracy laws, was being established.

Some decisions went even further. Granting that it is not criminal conspiracy to quit work in a body in order to benefit their own members, it is not easy to draw the line at quitting work in a body to secure the discharge of a foreman or a non-unionist whose acts are injurious to the members. Though the decisions here are conflicting, yet there were early decisions sustaining

Causes of the Union-Shop Policy

this right, and so essential is it to their existence persistently have the unions asserted it, that conflicting decisions, many of them have established the union shop. Here the logic of politics has been with them, and the politicians have been more consistent than the manufacturers, for the high wages to which protection campaigners point, are usually wages kept high by a closed-shop policy. Even the wages in unprotected industries like the building trades, which depend mainly on the closed shop, are offered as evidence of protection's benefits, while in the protected industries it is the closed-shop wages of tin-plate workers, smolders, blacksmiths, etc., and not the open-shop wage of woolen and cotton textiles, to which attention is directed.¹

A curious flank movement has taken place in the use of the terms "closed" and "open" shop. As the unions originally employed the terms, a closed shop was one which was boycotted or on strike, and in which consequently the union forbade its members to work. An open shop was one where union men were permitted by the union to get employment if they could. To declare a shop open was equivalent to calling off a strike and boycott. The terms as now defined are different. The closed shop, instead of being non-union, is the union shop. And the open shop is declared open by the employer to admit non-unionists, and not by the union to unionists.

Yet, even from this new standpoint, the terms are not clearly distinguished. Many employers have what they call open shops, and yet they employ only union men. The union would say that these are union shops, whereas the public generally would call them closed.

¹ See Republican Campaign Text-Book, 1904, pp. 86, 91, 223, etc.

The confusion arises from different points of view. The employer has in mind the contract or trade agreement with the union. He looks at it from the legal or contractual side. The union has in mind the actual situation in the shop. They look at it from the side of practical results. The agreements made in the stove industry, in bituminous coal mining, in three-fourths of the team-driving agreements, in railway machine shops, and many others, are plainly open-shop agreements, where it is often even stipulated that the employer has the right to employ and discharge whomsoever he sees fit, only reserving that he shall not discriminate on account of union membership or union activity. Many agreements are silent on the question of employment and discharge, and in such cases the presumption is in favor of the employer's freedom in selecting his men.

It is evident that with these different points of view it is difficult to reach an understanding. Clearness would be promoted by adopting a use of terms which would bring out the above distinctions as they are found in practice. In doing so the closed shop would be viewed from the side of the contract, and would be designated as one which is closed against the non-unionist by a formal agreement with the union; the open shop as one, where, as far as the agreement is concerned, the employer is free to hire union or non-union men; the union shop as one where, irrespective of the agreement, the employer, as a matter of fact, has only union men. Thus an open shop, according to agreement, might in practice be a union shop, a mixed-shop, or even a non-union shop. The closed shop would, of course, be a union shop, but the union shop might be either closed or open.

The contention of some union defenders that the

term "closed shop" is a misnomer, I do not agree with, if its use is limited as here proposed. They say it is not closed, because any competent man can get into it by joining the union. What they really mean is that the union is an open union, but this is another question, and an important one. Much can be said for a closed shop if the union is open, but a closed shop with a closed union cannot be defended. The use of terms above proposed makes it possible to draw these essential distinctions and to discuss each separate question of fact by itself and on its merits.

The historical steps were somewhat as follows. First, the union got the union shop by quitting work, or threatening to quit, in a body. Next they got the closed shop by a contract with the employer. If the employer would not make a closed-shop agreement, they either retained their original right to quit if he hired a non-unionist, or their open-shop agreement provided for negotiation whenever a non-unionist became obnoxious. In this way the open-shop agreement might mean, in individual cases, the union shop in practice.

Now the significant fact respecting the agreements just mentioned in the coal, stove foundry, railway shops and other industries, is that, while they are open-shop agreements, they are, on the whole, satisfactory to unions which in other branches of their work are most uncompromising for the closed shop. In all cases their satisfaction is based on three or four considerations. In the first place, the agreement is made, not with each shop, but with an association of employers, including the strongest competitors in the industry. It is to the interest of such an association to require all of its members faithfully to observe the agreement, because it

places them all on the same competitive level as far as wages are concerned. The employer who would violate the agreement would get an advantage over the others in the largest item of his expenses. This the others, in self-interest, cannot permit, and consequently as long as he is a member of the employers' association, the union is relieved of the burden of enforcing the agreement, and the employers themselves, as a body, assume the responsibility of doing what the union could do only by means of the closed shop or the strike. If the employer persists in violating the agreement, after his association has exhausted its powers of discipline, he is expelled, and then, being no longer protected by his fellow employers, he is left to the tactics of the union.

In the second place, the agreement is made, not only for members of the union, but for all positions of the same grade, whether filled by union or by non-union men. No employer, therefore, can get an advantage, in lower wages or longer hours, by hiring a non-unionist. No amount of protest or solemnity of promise, and, especially, no appeal to the Declaration of Independence from those protected by a tariff that violates the Declaration, can persuade the unions that the employer wants the open shop except to get his labor below the union rate. Some employers and some associations of employers, as in the machinery line and in iron and steel, have been frank enough to admit this, when they insist that their agreement with the union covers only union men, and that they are free to make a lower scale of wages for non-union men. But, as a rule, an agreement cannot stand for long on such an understanding, and very soon it goes to pieces in a strike for the closed shop or the dissolution of the union. There have been isolated exceptions where the union is strong, and thinks that the

non-unionist, in order to get the higher rate of pay, will join the union. But, in general, only when the agreement covers the non-unionist as well as the unionist, and when the employers show that they have the power and the will to enforce it, can the union consent to the open shop. Even this takes time, for power and good will are shown only through experience, and the workmen have undergone many bitter experiences of dishonesty, and many more experiences of inability, through the pressure of competition or changes in management, to live up to agreements honestly made. The stove founders, the soft coal operators, and others, after several years of associated action, seem to have won confidence in their ability and honesty of purpose in enforcing their open-shop agreements, and for this reason, the unions, though not entirely satisfied, are not driven by their more radical members to demand the closed shop.

In the third place, that clause of the agreement which provides for the so-called arbitration of grievances covers all matters of discrimination as well as all matters of wages, hours and rules of work. By discrimination is meant all questions of hiring, discharging and disciplining both union and non-union men. In this respect it seems to me a mistake was made by the Anthracite Coal Strike Commission in its award as interpreted by the umpire, Colonel Wright. The Commission had awarded that no person should be discriminated against on account of membership or non-membership in any labor organization, and had provided a board of conciliation and an umpire to decide any disagreement that should not be settled by the parties concerned. Under this clause the umpire stated the principle involved as follows: "A man has the right to quit the service of his employer whenever he sees fit, with or without giving a

cause and the employer has a perfect right to employ and discharge men in accordance with the condition of his industry ; he is not obliged to give a cause for his discharge. . . . "

The mistake in applying this principle of reciprocal rights lies in the fact that the union, under the agreement, had given up its right to strike. Having done so, it gives up its right to protect a member against discrimination or unjust discharge. In lieu of settling such a grievance by a strike the agreement sets up a tribunal to investigate and decide according to the facts. Of course, individuals retain their right to quit, and the employer retains his right to discharge, yet since the union has abandoned its right to strike, in view of the tribunal, the employer must be held to have abandoned his right to discharge a union man whenever the union alleges a grievance and appeals to the board. The employer always claims that discrimination was not intended, but this is a question of fact to be determined by the tribunal. Otherwise the most vital injury, one that concerns the very life of the union, is taken out of the hands of the board of conciliation and falls back upon the original remedy of the union—the strike. This is well understood in all trade agreements except the peculiar one in the anthracite coal industry. Every grievance or alleged grievance in the hiring or discharging of union or non-union men is taken up by the officers of the two associations and settled on its merits, under the terms of the agreement. Under no other condition could the union be assured against discrimination or unjust discharge ; which is but another way of saying, under no other condition could it trust itself to an open-shop agreement. With this protection, the case of each non-union man can be taken up in conference by the

officers of the two associations, and he can be disciplined the same as a union man for any acts injurious to the members of the union or menacing to the agreement.

These three conditions, I think, have been found essential in most open-shop agreements that have lasted for any length of time: namely, a strong and well-disposed association on each side; the same scale of work and wages for unionist and non-unionist; and the reference of all unsettled complaints against either unionist or non-unionist to a joint conference of the officers of the union and the association.

In describing these conditions I have indicated, conversely, certain conditions under which the union is forced in self-protection to stand for the closed shop. Such cases are those where there is no employers' association, or where the employers' association cannot control all of its members or all of the industry, or where the association is hostile or has a menacing, hostile element within in; as, for example, when it does not insist that its non-union or open-shop members shall pay the union scale. In these cases the maintenance of the scale and the life of the union depend on maintaining the union shop. Whether it shall be a closed shop or not, *i. e.*, whether it shall be unionized by a contract in which the employer binds himself to employ only union men, and becomes, as it were, a union organizer, or whether, as far as the trade agreement is concerned, it shall be an open shop, depends on circumstances, and the same union will be found practicing both methods, according to the locality or shop.

The closed-shop contract has recently been attacked in the courts, and in some cases overthrown, on the ground of illegality. Without branching into that side of the question, it should be noted in passing that such

a contract usually carries a consideration. If the union has a label protected by law, this is a valuable consideration which the employer cannot be expected to enjoy unless he agrees to employ only union men, and consequently all label agreements of the garment workers, brewery workers, boot and shoe workers, and others, are closed-shop agreements. However, the main consideration to the employer is the enlistment of a responsible national authority on the part of the union to compel the local union or shop to fulfill its side of the agreement. The local union is moved by personal feelings, but the national officers have wider responsibilities and a more permanent interest in living close to the letter and the spirit of the agreements. This is the consideration distinctly stated in the agreements of the typographical union with the newspaper publishers' association, several of whose members have non-union or open shops, it being agreed that the national union will underwrite every closed-shop agreement made by a publisher with a local union. The same consideration is found in the longshoremen's agreements, in all label agreements, and though not always expressly stipulated, it is understood to exist, more or less, in all agreements whether actually underwritten by the national officers or not. If the employer wishes the national union to be responsible for its local members he logically will agree to employ only members of the union. The open shop, by the very terms of the contract, leaves it to the employer to enforce the agreement by hiring non-union men, but the closed shop makes the national union responsible by requiring it to discipline the local union or even to furnish other union men. It is this consideration, more than anything else, that has led the stove founders and other employers' associations, under open-

shop agreements, to watch without protest the gradual unionizing of nine-tenths of their shops.

There is no doubt that the object which all unions aim to reach is the complete unionizing of the trade. In support of this there are two kinds of arguments, one of which I should call sentimental, the other economic or essential. Certain of the economic arguments I have just indicated. But there are some places where these do not apply ; and a union which relies solely on a sentimental argument cannot win the support of the public, which eventually makes the laws and guides the decisions. This sentimental argument holds that he who is benefitted should bear his share of the expenses of the benefactor. The union which raises wages and shortens hours should be supported by all whose wages and hours are bettered, and the non-unionist, because he refuses support, should be shut out from employment.

An argument like this, if not backed by an evident necessity, falls under attack. Such is the case in government and municipal employment. The government fixes a scale of wages. In the United States this scale is considerably above the scale in similar private employment. Trade unions have doubtless taken the lead in establishing these favorable conditions, but they really depend, not on the unions, but on politics. They are the natural outcome of universal suffrage, and are not found to the same extent in countries or localities where the labor vote is weak or labor is newly enfranchised. Formerly the political party filled such positions with its partisans. The situation is no worse when the union fills them with its members. But competitive civil service, or civil service reform, is an advance on both partisanship and unionism. Government pays the scale to all alike. There is no competition of

outsiders to force it down. The state can be a model employer because its products do not compete on the market. The non-unionist or the aggressive employer is not a menace to the wages of government employees. If the government should let out its work to the lowest bidder the union then could maintain a scale only by the union shop. But when the government hires its own workmen the union shop is not needed. A strike would be absurd, and the appeal for fair wages must be made to the people at large, through their representatives. The appeal is ethical and political, and not to the judgment of a strike, and such an appeal is stronger when free from the onus of an exclusive privilege.

This is not saying that government employees should not be organized. In fact the highest form of civil service in a nation committed to representative democracy is that where the public employees are organized in a union, so that all grievances can be taken up by their agents and "arbitrated" with the head of the department. This was demonstrated by Colonel Waring in the Street Cleaning Department of New York, and he showed that only by requiring his employees to join in a union could partisan politics be wholly shut out and the highest efficiency secured. But this sort of unionizing depends on a favorable administration and an enlightened public opinion, and not on the strike or the closed-shop.

There is a class of private employment similar to that of government employment in the conditions which make the closed shop unnecessary. This is railway transportation. A railway company establishes a scale of wages for its higher classes of employees. This scale is uniform over its system, is paid to all alike, and is not nibbled down by dickers with individuals. When the

railway brotherhoods accept such a scale, they know that it will be paid to non-unionist as well as unionist. Therefore they do not even ask that it be put in the form of an agreement, but are content that it simply be issued as a general order from the manager. They probably would take a different view if the company let out the hiring of employees to the lowest bidder among competing contractors, or even if they themselves tried to maintain a scale for section hands who are not protected by a long line of promotion. They certainly would refuse to work with a non-member to whom the company insisted on paying lower wages than the scale. The closed-shop policy on the railroads could be supported only by the sentimental argument, and the railway brotherhoods have recognized its futility when not backed by the economic argument. It is most significant that the agreements of the machinists' union for railway shops are likewise open-shop agreements, similar to the brotherhood agreements, issued as a scale of wages by general order for the entire system and making no mention of the union. This is also true of the machinists in government navy yards and arsenals, where the union has won several advantages for members and non-members alike. This is the union which, in general manufacturing, outside railway and government work, has been most bitterly assailed for its closed-shop principles, but it is evident, from the contrast, that these principles have been forced upon the union by the different character of the industry and the different attitude of employers.

The situation is different with street railways. Some of these companies are conducted on a large scale like interstate roads, and the unions are safe with an open-shop agreement. Others are conducted like shops, and

the street railway union seeks closed agreements, and has been known in a few cases to go on strike against non-union men. This union is entirely different from the brotherhoods in that it admits to membership every employee of the company including even the car cleaners, excepting only those who already belong to an old-line trade union. Its motormen and conductors are not protected by a long period of apprenticeship or slow line of promotion, like the locomotive engineers and railway conductors, and consequently their places can be filled by men fresh from the farm or from any other occupation or profession. In fact the union contains ex-lawyers, ex-ministers, college graduates, and a variety of ex-talent that is unique. To them, therefore, the closed shop is often essential, and to the companies also it is an advantage, for the international union then guarantees the local contract.

The sentimental argument, of which I spoke as applied to government work, sometimes becomes more than sentimental when applied to private employment, even where the non-unionist gets the same pay as the unionist. There are always selfish and short-sighted members in a union. If they see a non-unionist enjoying the same privileges with themselves without the expense of union dues, and especially if the foreman shows a preference for the non-unionist, they too demand exemption from union burdens. Thus the union disintegrates, and a cut in wages or stretch in hours cannot be warded off. Experience is a hard teacher and has taught this lesson thoroughly. It is not a mistake that the persistent non-unionist in private employment should be looked upon generally as a menace.

Another fact regarding this sentiment is often overlooked. Being compelled to work together and help

one another in the same shop, men's feelings toward each other are personal and intense. The employer in his office need never see the competitor whom he is trying to crush, and only their products meet on the market. He scarcely can understand that his workmen in the shop are also competitors, but, in addition, are under enforced personal contact, and their sentiments cannot be kept down. What to him is business seems malice in them. Yet these feelings are really a factor in his cost of production, as much as the coal under the boiler or the oil on the bearings. It is not surprising that the open shop, even from the employers' standpoint, is not permanently practicable, and tends to become either union or non-union.

It would be possible to run down the entire list of unions, and to show in each case the industrial circumstances which make the union, or closed, shop necessary or unnecessary from the standpoint of maintaining wages. Wherever there is a large number of small contractors, as in the building trades or the clothing industry, an open-shop union cannot survive. The building trades in London though less effective on wages than American unions, are nevertheless safe with their open-shop agreements, because, in addition to the fact that the unions are not compelled to protect the common labor working with them, the master builder does not sublet his work, but has his own large establishment and permanent force, and hires all the trades directly. He takes up all grievances when they arise, including the grievance of the non-unionist. But in the United States the master builder has usually only an office force. He sublets all but the mason work to ten or thirty different contractors. These contractors often require little or no capital, and a mechanic today may be

a contractor tomorrow. A non-union contractor, with his lower wages and imported labor, would soon drive the union contractor out of business. The building trades are therefore compelled to put their closed-shop policy foremost, and where they have been defeated in this policy, as in Chicago in 1900, they have soon regained all they lost of the union shop, even though working under explicit open-shop agreements.

In the clothing trades, the sweat-shop is simply the open shop; for the sweat-shop is the small contractor with fresh immigrants, long hours and minute division of labor, crowding into the market and underselling the shops where wages, hours and conditions are better. Such would unquestionably have been the outcome in the building trades had the unions not been able to enforce the closed shop. No amount of good will on the part of clothing manufacturers or master builders could stand against a market menaced with the product of open shops. It was through the open shop that the American-born tailor was displaced by the Irish and German tailor; that the Irish and German were displaced by the Jew and by Polish women; and that the Jew is now being displaced by the Italian. In the building trades the Irish, German and American have stopped this displacement by means of the closed shop. The Jew is vainly trying to stop it, and the Scandinavian in Chicago until recently had stopped it in one branch of the clothing trade. Each displacement has substituted a race with a lower standard of living. As soon as a race begins to be Americanized and to demand a higher standard, another still lower standard comes in through the open shop. This is the history of many American industries. Whether the conditions in the clothing trade are preferable, for the

American nation, than conditions in the building trades, is a question open for differences of opinion. The difference, however, is not apparent among the workmen in those trades. The immigrant, the manufacturer, the consumer, may hold a different view, but if so, it should be understood that the question in dispute is that of the wages of those workmen. As things are, the union shop or closed shop is the wage earners' necessary means to that end.

It is sometimes asserted that American unions, like the British unions, should place more reliance on reserve funds, benefit and insurance features, and that, with these attractions they would not have been compelled to put forward so strongly the closed-shop policy. The British workmen joins the union at the close of his long period of apprenticeship, and his motive is not the coercion of the closed shop, but rather insurance against sickness, death, loss of tools and out-of-work. His union is like the American railway brotherhoods which also rely on insurance and previous promotion. But the American unions do not have this period of apprenticeship to work upon, except as they have established it by the union shop. They are confronted by foreigners in language, modes of thought and standards of living, pressed on by necessities in a strange country, and eligible without previous training on account of minute division of labor. Should American unions wait slowly to build up their organization on the open-shop and insurance-benefit policies, they would be displaced by foreigners before they could get a start. The foreigners again would have to set up the union shop as soon as they in turn began to demand better conditions and were confronted by a new race of immigrants. This is exactly what they have done, and the union or closed

shop in America is necessary to support those very insurance and benefit features which are proposed as a substitute for it.

That there are many serious problems springing from labor unions is evident. But they would properly be discussed under other headings. The present discussion is not merely of their good or bad methods—it is of their existence and their power to raise wages. Under a different order of industry or a socialistic policy of government unions might be superfluous. Their existence and their methods arise from the nature of the industry and the attitude of employers. A method necessary in the building trades or coal mines may be superfluous on the railroads. Their methods also arise from the universal human struggle for power. No institution or individual can be trusted with absolute power. Constitutional government is a device of checks and balances. Employers' associations are just as necessary to restrain labor unions, and labor unions to restrain employers' associations, as two houses of Congress, a Supreme Court, a president and political parties, to restrain social classes. Progress does not come when one association destroys the other, but when one association destroys the excesses of the other. This kind of progress is going on in the several industries mentioned above. There the open-shop question has never been even considered or mentioned, or else in course of time it has become only an academic question, because the employers' association takes up and remedies every real grievance or disproves every fictitious grievance that provoked the union into existence, and does not permit any of its members to "smash" or undermine the union. The bad methods of the union are gradually reduced by discussion backed by the power of organization, and its

good methods are encouraged. Education improves both parties; mutual respect succeeds suspicion. In those industries it is accepted that protection to capital carries with it protection to labor; that fair profits imply fair wages; that well-disposed associations on each side shall together discipline the non-unionist the same as the unionist; that the employers, having lost despotic control of their labor, regain a nobler control through coöperation with the union; that the opposition to non-unionist is not based alone on sentiment or malice, but on economic necessity; and that a question, which only stirs up class hatred in the field of pronouncements and abstract rights, works out a peaceable solution when men acknowledge mutual rights.

THE ISSUE BETWEEN THE OPEN AND CLOSED SHOP

JOHN GRAHAM BROOKS

It will help me to state three facts which I take for granted in this paper without further discussion. First, that trade union excesses at certain points have compelled the employers to organize. Second, that this organization, if directed fairly against the abuses of the unions, is the best possible thing that could happen to the unions. The struggle on the inside of labor organizations between the conservative and the raw, radical elements is quite as relentless as the struggle between the union and the employers. A stubborn, well organized opposition to every abuse on the part of the union will strengthen the conservative control within those warring bodies. Third, that if (as in some of the allied building and metal trades) the union persists in retaining a reckless leadership, the employer has no alternative but to fight ; to fight moreover not on the assumption that the union is to be preserved—but that it is at least to be temporarily destroyed.

Neither the open nor the closed shop is a clearly defined object for discussion. In respect to trade union aims and employers' rights, a given closed shop may differ from another closed shop more radically than many open shops differ from closed shops. There are employers who prefer collective bargaining and the joint-agreement with the provision that only trade unionists be employed. Granite cutting, cigar making and coal mining offer such illustrations. There are closed shops in which the union insists upon having the foreman a member of the union ; which restrict output, which re-

fuse the 'employer the right to discharge and compel *him* to force non-union men into the union. There are open shops like that of the Boston Transcript, so fair as to wage scale, that I have heard trade union printers say that they did not even object to this kind of open shop, and that, because the non-union standard was controlled by the union. There are plenty of other open shops in which discrimination and blacklisting against trade union men is so bitter, that it has every characteristic of the worst closed shop. It is with this extreme diversity of conditions that we have to deal. Most industries in England have the open shop, and yet in these instances it is so distinctly understood by the employer that he is under practical coercion not to have non-unionists that the business is far more a closed shop than many a business in this country where the union label has been accepted and the contract signed.

Every attempt at definition is embarrassed by these diversities. Theoretical accuracy would class as open shops scores that are called *closed* by employers and employed. Employers in soft coal, granite, stove and cigar industries tell you "We have the closed shop," in spite of the fact that the "joint agreement" doesn't mention it, or expressly says it is an open shop.

Logically, or in terms of the contract, we cannot escape this verbal perplexity. The moment, however, we approach from the practical side, this difficulty vanishes.

As I deal with this practical side, I think it adequate to say that a thoroughly unionized shop, understood to be such and accepted as such by the employer, is a closed shop, just as the open shop is one in which the employer hires and has constantly on hand non-union men.

That the contract for the closed shop forces the employer to discriminate against non-union men, shows at once why the fight is on. It explains the heat and determination of the employer. It explains in part the stiff reaction against the trade unions in the United States during the last eighteen months. It explains the almost universal approval of the open shop principle by the press and the outside public.

However friendly one may be to the closed shop under certain conditions, it must be confessed that it has to be defended as a practical exigency in a given time and place, rather than as a *principle*. One must also admit that the twofold organization which the closed shop implies may finally prove so costly to the general consumer as to condemn it from this ground alone. We are not, however, at present sure of this.

It is the best of luck for the employer that the issue has arisen in its present form. It is not only ill luck for the unions, but partly their fault, that they have permitted the issue to get before the public in its present shape. If instead of crying openly for the closed shop contract with its obligation to turn the employer against the non-unionist, they had turned the tables and cried against the proposed discrimination against an effective unionism with its principle of joint agreement and collective bargaining, the trade union argument would probably have three chances in the fight where it now has one. I admit there would be an element of humbug in this strategy, but not one-half the humbug that fills the great phrases of the employers about "liberty," "freedom" and "Americanism." As it is, the employer will get every advantage out of those big words. The public will respond to them. The response will be so general, so unequivocal, so instinctive that there is a

good deal of danger not only of general confusion but of injustice to what is best in the aims of organized labor.

Why is it that the trade unions object to the open shop? Because they fear it will be used to disrupt or dangerously to weaken their organization. The open shop in the hands of an employer who is hostile to the union can easily use the non-union contingent with deadly effect. The non-unionist is always the danger to the wage-scale. The union is opened to insidious attack at the very points where its weakness is greatest. This is no mere theorizing of the trade unionist. It is a part of his long and bitter experience in trying to raise wages and lower hours. I heard the social secretary in a business that has finally granted the closed shop tell why he thought the men were right. "When the union was weak", he said, "we could deal individually with non-unionists who were often willing to start in with almost any wage. This enabled us to play these men against the trade union minimum so as to bother the life out of them. But more than this", he added, "is the temptation of the employer whenever he is hard pushed to cut wages, as the easiest of all ways to get out of financial trouble. In our business", he said, "a cut of five per cent. drops several hundred dollars a week into our cash box, but if we can bargain individually with fresh men and new apprentices we can get the equivalent of that cut without appearing to make it."

Again, this danger of the non-unionist is incalculably greater in America than in England because the disciplining power of benefit features is here so slight.

The chief struggle of the union is the discipline of its members; collecting dues and enforcing penalties. In a union that is new or weak or composed of many nationalities, the open shop, *plus* an employer unfriendly

to unionism may render it almost impossible to build up an organization that possesses any real power of assertion. Nor is this the interest of the trade union alone. The public concern is definite and immediate if the principles of the joint agreement and collective bargaining are of any social importance. Strictly on the evidence, we have come to believe that both these agencies have economically and educationally extreme utility. If anywhere in the future the wage system is to be modified in the direction of more cöoperative and democratic methods, the joint-agreement in some form has to be strengthened and extended. For the kind of education we most need, politically and industrially, I do not know a more disciplining agency now working in the United States, than the joint-agreement, as it may be seen for example in our soft coal districts and among the longshoremens and cigarmakers and stove makers. As to the value and justification of collective bargaining one need not argue before this body. Or, so far as it is the policy of employers' associations to carry on the fight for the open shop with the rancor shown in every issue of "American Industries" does anyone suppose that the unions will not strike back in the same spirit for the closed shop? This rancor among employers will create the very difficulty they are trying to avoid. There are no abler labor leaders in this country than those that hold that the power of the absolutely closed shop, *if generally applied*, would be unsafe from the union point of view. They hold that the compulsory element except in a few industries, is dangerous; that the progress of the union depends upon persuasion and upon merit.

The Civic Federation has done no more signal service than in meeting the trade union at this highest point of

its development. It enlists the coöperation of what is best and most conservative in labor organizations. It thus avoids the blunder of trying to discipline the union chiefly from without. If unions are to persist, their education must come more and more from within.

But what has this to do with the open or closed shop? It has pretty much everything to do with it, in the actual situation which we are considering. The National Typothetæ of America at their last meeting came out almost fiercely for the open shop. In a paper that got great applause the vice-president said, "The open shop means the destruction of the union, unless the unions concede it." He then attacks the whole method of the wage scale that goes with collective bargaining, saying outright, that the employer must deal with his men "individually," hiring whom he will with no conditions, discharging men as he sees fit without giving any reason. Among an exceptionally intelligent group of employers, we thus see what the unions have to face.

In spite of a formal sop to collective bargaining at Pittsburg last spring, the Manufacturers' Association of the United States leaves us in no doubt as to what its members want, if they are strong enough to get it. They decry every distinctive feature of labor organization, so far as it is an aggressive body struggling through its representatives to get a higher wage and shorter working time.

It will help us a little to get clear about the frequent reference to the open shop question in England and in well behaved unions like our own railway men who have the open shop. Those who compose this union are a picked and carefully sifted lot of men in no way analogous to trade union membership in the severely competing industries like cigar or garment making.

As for England, where the open shop technically prevails, the population is homogeneous, the unions old, disciplined, restrained by large benefits, and what is more, the employer however much he may hate them, has come to recognize the fact of unionism, the fact of the joint-agreement, the fact of collective bargaining, in a way that separates the situation there well nigh absolutely from our own.

There is, I think, almost no real light to be thrown on our subject apart from the facts and peculiarities of our present industrial condition in the United States. What is chiefly peculiar to this condition? (1.) The degree of individualistic temper in our employing class; an individualism magnificent in its achievements, marked by a succession of industrial triumphs which are, upon the whole, unmatched by every test of material success. The second, is the extent and character of our immigration and all that these mean to the employers in their struggle against a really effective unionism. That there is a struggle against the union "per se," will, of course, continue to have very insistent public denial. "We do not object to what is good in trade unions; we have no quarrel with trade unions as such," are very familiar phrases. I have spent a good deal of time trying to find out what intelligent meaning attaches to "per se" and "as such," what "the good trade union" is in the eyes of a large part of the most influential employers.

During some weeks of the Colorado Strike, I found no employer who was not careful to say in public and in print that the trade union was all right "as such," but the organization he had in mind was one for which no lot of laborers would sacrifice an hour's time or a day's wage. Anything like a labor organization that would

correspond in the least to the organization that capital has secured, was a thing to be fought to the limit and with any weapon that could be reached.

The illustration is an extreme one. A part of the trade union leadership in those communities deserved all the punishment it got; but the temper toward such a union as the workmen are trying to get and *ought* to try to get, is not in the least confined to Colorado. It characterizes at the present moment thousands of our employers.

The third characteristic of the situation is the rise and federated strength of citizens' alliances and employers' organizations. These organizations have doubled and redoubled the strength and confidence of the employers in their contest with unionism. Association has changed the helplessness of isolation, to the courage that comes with organization and the various forms of insurance which association offers. To see what this new power is, it should have very concrete statement. In many a town in which trade unions have become domineering, one sees the strongest men in the community in every business and in all the professions so united that the mayor, the aldermen, the police, the editors and even the courts are immensely stiffened against the whole fighting policy of the unions.

Some of these anti-union bodies have gone much beyond persuasion in securing members. There was never so effective a blacklist in the United States as some of these associations have employed. There has been plenty of the spirit of picketing and no end of boycotting in rather extreme form. As they have strengthened along the lines of general federation, they have shown extraordinary efficiency in checking labor legislation in Washington, like the eight hours and the anti-

injunction bills that were finally not even reported out of the committee. They have legal departments, press committees, detectives, employment bureaus and their own walking delegates and a staff of strike breakers. In several instances they have turned patronage toward a boycotted firm so that the boycott resulted in a pecuniary advantage to the victim.

(a) In this militant and confident individualism; (b) in the overflowing market of low class labor which immigration offers; (c) in the united and aggressive force of employers' associations may be seen what trade unions have now to face in this country.

Here in this employers' organization is a new force with which trade unionism must cope. Its strength and permanence we do not know, but it is well for the unions to understand that capital in this country has never yet found it worth while to exercise its real strength against organized labor. It now finds it worth while.

It is true that the excesses of certain unions have driven the employers to organize. But the supreme question remains how is this new power to be used? Exercised with wisdom enough the open shop is safe. Exercised narrowly and for immediate advantage it is socially of extreme danger.

Very little light is to be thrown upon any practical feature of this open shop question apart from these tempers and conditions amidst which the contest has to be carried on. On any grounds of abstract rights it cannot be discussed with much profit.

When Mr. McSweeney says that Constantinople is now the centre of our immigration, we see what that means for lowered economic types. Thousands, moreover, now come almost monthly, not because of the hardy and ad-

venturous quality which makes the good emigrant, but because swarms of local agents have made it their business to wheedle and persuade them. In Southern Italy alone are more than three thousands of these agents. The granite cutters who have the closed shop had little difficulty with the Italians from the North of Italy, but for some years the increasing proportion of Southern Italians, coming in flocks under contract to padrones, has made an absolutely new problem for those unions.

Our guidance must come in this question from these competitive conditions and not from any sounding generalizations whatsoever. Employers are going to the tilt in the name of "liberty," but organization on both sides has introduced something so like a revolution that the truth is, we do not know what liberty means as applied to the new situation. It has still, in its applications, very largely to be worked out. If, for example, the closed shop, brought about without any violence and with the consent of the employer, as in some of the cigar factories, results in a good living wage with eight hours and improved conditions, and the entire exclusion of children; while outside the union there rages a destructive competition and many children employed, is it not grotesque to make words like liberty and Americanism synonymous with that kind of haphazard competition? Liberty is not adequately defined in terms of the employers' pecuniary interest. It also has social connotations which we are only beginning to learn.

The landlords fighting the Irish land act of 1881* were enraged because this act was an attack on "free contract" as interpreted solely by the landlords' rental, but Gladstone and those who helped him, forced the

*NOTE. John Morley calls this (*Life of Gladstone*, III, 537) the most deep reaching of all his legislative achievements.

public to recognize that the cottier tenant was not in a position to make a really free contract. This kind of contract had to go, together with unchecked competitive rents. In our own country we shall not take one enlightened step in dealing, for instance with industrial accidents, without modifying very profoundly this principle of free contract, as in the case of "contracting out". In the garment industry, if it should be found that the employers could not control the situation;—that advantage will be taken of the open shop and of the stream of fresh immigrants like the Italians who do not care as the Hebrews do to keep their children in school; that the gains due to trade union sacrifices were not only put in jeopardy but the power of the sweater was on the increase,—are we in this instance to be comforted by any unctuous rhetoric about "Americanism" and "freedom"?

For any formal limitation on this freedom there may conceivably be the amplest compensation. In such special industries as I have indicated, social utility and security must test even the biggest phrases.

If with the closed shop the union win two dollars a day and eight hours, it may well forego some aspects of personal freedom. Or shall we say that the open shop of the sweater with a dollar and a quarter and a twelve hour day, is more desirable because the workers are free? If the facts force this alternative, which are we to choose? The employers in this trade find discrimination an outrage, but they must practice it themselves if they do as they promise. Competition and the kind of market they work in, make it easy for them to get cheaper workers and longer hours, but they say they will not do this. If they do not, they certainly will have systematically to discriminate and set limits to freedom

of a lot of workers to sell their services as they like. They cannot hold the higher standard without it.

We do not like discrimination, but it is accurately, what our whole competitive system is filled with—this discrimination. The trade union form of discrimination is by no means the worst, especially if the unions are met by powerful employers' organizations to check their abuses. This tendency among us to hold the trade union to an exceptionally high moral standard has plenty of other illustrations. There is much indignation because the unions set so many barriers against the free employment of all kinds of surplus labor. But this ugly shadow is thrown on us from quite other causes. It is an evil the roots of which strike so deep, that no one of a dozen commissions appointed to deal with it has yet thrown much light upon its effective cure.

There is the same reason for open-mindedness and patience in regard to the legal side of this question. No mere revival of precedents from the conspiracy laws will meet the new difficulties. We now have Judge Adams at one pole and Judge Parker at the other, with every variation of legal opinion somewhere between these extremes. Mr. Dooley could find rare sport in this conflict of opinions. As in the case of capitalistic combinations the complete legal statement has yet to be made.

In thirty-eight labor papers I find the demand for the closed shop. With the exception of two or three unions like the locomotive engineers, the demand is practically universal. I would not make too much of this, but I wish to submit this question: From what we know historically about the long struggle of the trade union with the employer, have the trade unions been more wrong than their masters on the chief issues between

them? I doubt if any student would claim this. If the conviction of labor upon any point has persisted and become a mass-conviction, does it not now make an extremely good showing as compared with the judgments of the employer on the same points? It surely goes for something that the feeling and opinions of the unions on the closed shop has such strength and persistence.

To judge this open-shop issue, as I am attempting to do by the employers' temper and by business and social conditions is of course open to difficulties. We are by no means certain either of the temper and conditions, and much less certain what changes both will undergo. Immigration may be greatly checked but I do not believe it. The employers association may fall under the control of heads steady enough and wise enough to deal coolly and adroitly with this question. The temper and policy of the trade union may also change. Last summer, in Colorado, I asked the employer who led the fight at its bitterest point, what policy they were likely to adopt when they had smashed the Western Federation of Miners. "Keep the wage up and the hours down and deal fairly with the men, let them have a union if they want it but a decent one". Well, if they should *do* that; if the pig-headed, the embittered, the weaker and hard pressed employers could be controlled by such a spirit there is no cause for worry about the open shop.

Again in the garment making industry, where the best test for this question is found, I am told by some of the best employers in it and by the National President: "We are agreed not to use immigration to lower wages or to lengthen hours of work. We have won the open shop and we shall keep it, but we shall not use it to

weaken the trade union or to lower the standard of living."

I could not find a garment maker or labor leader in that trade who believed for an instant that the employers could do this. There is something like terror in unions because of what they believe an army of petty warring contractors can bring about through competition and the easy resources of Jewish and Italian immigration. It is extremely doubtful if employers' organizations can ever hold together without steady organized resistance of the unions. Thus we have to watch this new power now in the hands of the employers. The open shop has been won at points where it was least expected by the unions; in printing, garment making, building trades and among the metal workers. The anthracite Coal Commission made this issue clear and emphatic in its report. President Roosevelt also met this issue unflinchingly in the Miller case at the Government Printing office. All possible pressure and threats from the trade unions were brought to bear upon him to discharge Miller and thus play the closed shop game. The public sympathy for this action of the President was instant and complete. I was sitting with a little group of trade unionists in New York City a few days before the election. One of them said, "We have our orders to vote for Parker because of the Miller case." Yet what conceivable indications are there of any real union response to this? They went their way and voted for Mr. Roosevelt. They saw clearly that the *Government* could not thus discriminate among its citizens. They saw that competition could not there enter in to lower the wage scale, as it may and does in so many private competitive industries by using non-union men to break the scale.

It is the extreme open shop claim that we fear precisely as we fear the extreme closed shop claim. We now have proof that to press the open shop issue too relentlessly is itself a cause of strikes followed by much bitterness and a spirit which would mean pretty much everything among his workmen that the employer does not want. If the union restrict output for instance, will the employer in the long run get less of it with a crushed union and a sulky lot of workers?

The bearing of this closed shop contest on the sources of good or ill will both with employer and employed is fundamental in discussion. I have given opinions from nearly forty labor papers. What then may fairly be said of the temper on this issue of a very large number of employers? It never had either so general or so definite an expression. We need not confine ourselves alone to the organ known as the "American Industries." In this journal, and very widely on the outside, we have first the persuasive shibboleth. "The employer now proposes to manage his own business." That carries so convincing a proof and if properly defined, *is* so true that it is worth taking up arms for, but like "freedom" and "true Americanism," it is a phrase, and it may be a damnable one, if "managing one's own business" means the destruction of collective bargaining with what that implies in helping labor to assist in determining the wage scale, working time and specific shop conditions. That such crippling of the trade unions is aimed at by hundreds of these new employers' organizations admits, I think, of no question. The constant and contemptuous reference to the Civic Federation and definitely to collective bargaining, the joint-agreement and even to arbitration, is proof enough of this. *With this temper* the open shop is likely to be at least as danger-

ous socially as the closed shop at its worst. Every conceivable affront to liberty may go with the open shop. Vicious discrimination against union men as such, the boycott, the sympathetic lockout may also play havoc with every principle sacred in a democratic society. The delight of the socialist at the success of these anti-trade union organizations has plenty of significance. If I were a socialist, I should hail "Parryism" and all it means as the most effective aid that political socialism now has in this country. On the other hand, I should fear most the constructive work of bodies like the Civic Federation. These stand without any humbug for common organic efforts between capitalistic and labor organizations. They squarely grant to the union strength enough to get some form of agreement, so that the habit of contract-making and contract-keeping can slowly be built up between industrial groups. It required generations to teach any *group* the hard lesson of contract keeping and we are as dull-witted as we are unjust to expect the labor world to learn it more rapidly than others have learned it.

Finally, what one hopes is that the closed shop, where it is working constructively and decently, as it has been for years in several of our industries, may have a fair chance to show us what it can work out—in raising wages and reducing hours. The cigar makers in Boston for instance have the closed shop but with no written agreement. Upon principle they have low initiation fees (three dollars in six annual installments) in order that all in the trade may easily join. If no person is refused admission, shall this be classed strictly among monopolies and if so, in what sense? There are cigar factories closed absolutely to trade unionists known to be such. I suppose that not a half of the cigar makers

have the closed shop but this has gone on with a degree of educational and disciplinary work—elaborate insurance benefits—unemployed benefits—but more than all these, the winning of an eight-hour day and a decent wage under piece work which affects the whole trade. That complete individual freedom suffers somewhat under this régime is of course true, but that limitation of personal liberty is not in the least peculiar to the closed shop, nor does it find there its worst forms. The able secretary of the Boston cigarmakers writes me, that after the long years of struggle to get their present standard including the elimination of children and equal pay for women with men, “I hold if the hours of labor are eight and the wage two dollars a day, no one should be allowed, if we can help it without violence, to sell his labor below the scale or agree to work longer”. If a strong trade union is necessary to win and maintain this hard won standard in industries like garment and cigar making, should we not be very patient with the method (if violence is eliminated) that are found necessary to secure the result?

There is not the slightest fear that the closed shop will become universal. The compulsory and monopoly features in such voluntary associations are an evil with little justification further than they are necessary at a certain struggling stage of the trade union movement in its costly effort to raise and maintain its standard of life.

The enemies of the union in this country are doing their utmost to fix the attention of the public and keep it fixed on the accidental features of the movement ;—on its excesses, its bad leadership, its narrowness and shortsightedness. Unhappily these are all there, but they are in no sense even secondary aims of unionism.

To secure and to retain against immense difficulties the income and conditions of an improved economic and social standard is primarily and mainly what they are after.

It is because we are at present so ignorant about the necessary limitations to the competitive system, that we ask some suspense of judgment about the closed shop principle, especially where it is working without any grave injury. That our conceptions of liberty and law and freedom of contract, as applied to the actual situation have to undergo very considerable modification may be put down among the certainties. Meantime it may prove that with intelligence and good temper on both sides, the practically closed shop may be found in such industries, as I have indicated, temporarily very vital in strengthening collective bargaining and the joint agreement, and thus helping toward a more tolerable organization of industry.

THE NECESSITY OF AN OPEN SHOP—AN EMPLOYER'S VIEW

JOHN D. HIBBARD

When I was honored with the invitation to address your Association on the "Open Shop," it was suggested that what might be of interest was a statement of the views of an employer on the question under discussion, based upon his actual experience and observation. That the constitutional rights of the non-union man, granted by our form of government; as set forth in the findings of the Anthracite Coal Commission, and as described by nearly every writer on the subject, were well understood, and that the Association had passed the time when a purely academic discussion was of as much interest as the statement of actual conditions from which rational conclusions might be drawn.

In order that these considerations, as seen from the standpoint above suggested, may be clearly indicated; that the peculiar difficulties of the situation may be accurately described, it has seemed desirable to define "open" and "closed" shops as follows:

First, the "closed shop," indicating, in the ordinary acceptance of the term, that in which union conditions prevail throughout, and in which none but union men are employed.

Second, the employers' "closed shop," closed to union men.

Third, the "open shop," where a nominal "freedom of employment" exists. Where there is supposed to be no discrimination against unions or union officials, on the part of the employer, and no intimidation or coer-

cion of non-union employees, on the part of the union. This is the "open shop" as usually found to-day.

Fourth, the true "open shop," in which the suppositions of the preceding definition become facts, where the rights of the individual are respected, where reward is measured by merit and where law and order prevail.

That it might be possible to present to you the employer's attitude toward the several shops enumerated, a circular letter was addressed to the members of the Chicago Metal Trades Association, (composed of employers of machinists, metal and brass workers and allied trades, in this city) as well as to others, whose opportunities and experience made them, presumably, competent witnesses. The answers have been freely used in what follows:

From the very nature of the request made of me, this must be an "ex-parte" statement; still I will endeavor, without feeling or bias, to give you the best thoughts of these present day employers.

That unions have played a most important and necessary part in the improvement in the hours, wages and conditions of labor, well illustrated in Mr. Ray Stannard Baker's article, in *McClure's Magazine* of December last, "The Rise of the Tailors," most employers of to-day admit, as well as that employers of the past were largely responsible for unendurable conditions. Nor is there to-day, broadly speaking, any antagonism to unions as such. I have among my personal friends many union men, business agents and National Union officers, whose motives or actions cannot be questioned, and who have at heart the real welfare and advancement of those whose interests they represent, and my criticisms are not of such, nor of the unions themselves, but of certain policies and their results.

FIRST, THE UNION "CLOSED SHOP." Most employers to-day believe that the contract, implied in the operation of a wholly union shop, is illegal and contrary to the conspiracy enactments of a large number of our states. Regardless of what may be said of the selfish interests of employers being paramount, the legality of such a contract is a live issue. In a recent decision of the New York Court of Appeals the chief judge says: "I fear that the many outrages of labor organizations, or of some of their members, have not only excited just indignation, but at times have frightened courts into plain legal inconsistencies and into the enunciation of doctrines which, if asserted in litigation arising from any other subject than labor legislation, would meet scant courtesy or consideration."

Judge Francis Adams, of the Illinois Appellate Court, Northern Division, in the now celebrated Kellogg Switch Board and Supply Co. case, states, "The agreements in question would, if executed, tend to create a monopoly in favor of the different unions, to the exclusion of workmen not members of such unions, and are, in this respect unlawful. Contracts tending to create a monopoly are void."

I believe we may look for a more rigid enforcement of our conspiracy laws in the near future. Public sentiment is awakened to this necessity — whether the offender is employer or employee.

The next, and possibly more far reaching effect of the union shop, is the condition of "dead levels", brought about by the minimum wage limitations and working rules. The brotherhood idea of the stronger helping the weaker is, in the abstract, something we all subscribe to, but in actual experience the results are not beneficial to employer or employee. It is the universal

experience of employers that complete union conditions are an absolute death to individual effort and ambition. Take away the incentive of a workman to do better, fine him when he does more than his stinted amount, let him realize that the minimum wage usually is and must be the maximum, and the inevitable results. Men who have been in my own employ, capable, energetic and ambitious, have, after joining the union and being pointedly informed that they were making slaves of themselves, and were setting too fast a pace for the others, become listless and careless, their work depreciating not merely in quantity but in quality. This experience is almost without exception, that of all. "The initiative to do a fair day's work, is destroyed, as is also the desire to improve condition and position by showing superior skill and energy in turning out the work to be done. The whole tendency is to level the better man down to the poorer, by forcing an artificial minimum wage. The minimum wage destroys the fair and discriminating grading of men according to their merits. The average daily wage in the shop is forced so high by this minimum wage that it becomes practically impossible for the manufacturer to pay the highly skilled, active and intelligent workman the wage he can earn. There is a marked tendency in a closed-shop, for the poor men to shirk their work, reduce the output and fall back on the union for protection." Of all the charges to be laid against the union to-day, there is perhaps no single one so serious as that the mental and moral fibre degenerates under conditions of unrestrained union power.

The "closed shop" implies a contract, about which I shall have something further to say. One of its features I desire to suggest at this time, which involves one of

the greatest difficulties of the labor problem, namely, the proper division of profits between capital and labor. Few union men are qualified, either by education or experience, to discuss costs, profits or economic conditions, and by this I do not mean to infer that they are any less capable than the employers—but, as is well known, these are the important problems in the every day life of the employer and of those whose chief duty it is to *know*. Elaborate and expensive cost systems, obtained only as the result of years of study and the expenditure of large amounts, are becoming more and more necessary as competition decreases profits, and it is a wise employer who knows his costs. Moreover, in discussions of this character, sufficient distinction is not made of employers, all being placed in one class and treated alike. There are, without doubt, many examples of abnormal profits accruing to capital, with no corresponding increase of wages, but by far the larger number of employers, as a result of unrestricted competition, the combination of large interests, and limitations insisted on by the unions, find it difficult to obtain a fair and just return upon their capital invested, upon their own skill and effort. At least this is true of later years.

I shall merely mention the employer's objection to the restrictions placed, in "closed shops," on apprentices. These are well known, as are also their blighting effect.

The "closed shop" imposes almost unbearable conditions upon the small employer—and there are many such—who happens to be located where union conditions prevail, while his competitors in other sections of the country are not so affected. Many times the argument has been made, by union men with whom I have discussed the question, that if we would only locally

subscribe to all the union conditions demanded, their attention could then be directed to the outsiders. If good judgment prevailed and wise measures were adopted by the union so recognized, possibly this might be done, but unfortunately, in the instances with which employers are familiar, where union conditions have been installed, such wisdom has not been manifest. Discipline — and by this I mean reasonable and proper discipline, such as is recognized as being essential to success—is hard to maintain; and unwise, unjust and arbitrary coercion is exerted to defeat reasonable economies and shop practice. “This same union control strikes directly at the shop discipline; men loaf on their jobs, take unnecessary time away from their tools, run them at low speeds, and do many other things that are very hard to counteract, no matter how active or observant the superintendent or foreman may be.”

Another serious objection on the part of the employer, to the closed shop, is the fact that he must compel his men to join the union or leave. This is no light matter. The discharge of an old employee, who has been faithful, merely because he does not wish to join the union, is a serious thing. It is useless to say that he may join the union if he desires. His doing so should be purely a matter of his own free will. “To confess that a union cannot exist and prosper unless it is able to close the doors to all applicants for employment not registered in its membership,” says the *New York Times*, “is to admit a fatal, and, under present conditions, irremediable weakness in the trades union position. The demand is one impossible of recognition, by either labor or by employers of labor. There has probably never been a time when fifteen per cent of the wage earners of the United States were unionized.”

Possibly the most common objection, on the part of the employer, is the limitation of output and the general retrograde movement in personel of the workman and the character of the work. At one of the meetings of the National Civic Federation, held at Steinway Hall, this city, I heard President Gompers state that there was no such thing as limitation of output. Notwithstanding this statement, I believe that no one feature of unionism, as at present manifested, is so common, so insidious and so dangerous to the workman as well as the employer, based as it is upon absolutely false economic theories, as limitation. That such limitation does exist is well known, not only by the employer and the workman, but to all those who have given the subject any study. As a forcible illustration of limitation, perhaps the following may prove of interest. A strike was ordered in the shops of the members of the Chicago Metal Trades Association, involving some 1,500 employees of a certain craft, who for the most part were presumably skilled in the particular work they were performing. This work varied materially in the different shops, as the Association embraced manufacturers of printing presses, heavy conveying machinery, sewing machines, machine tools, steam valves, ice, can, and mill and mining machinery, as well as many others. Almost immediately after the strike had been declared these shops were filled with an equal number of employees from all parts of the country, few of whom had ever been engaged in the work now set before them. I am within the bounds of truth when I state that inside of three months, with the same working hours per day, the output of these green hands equalled or exceeded that of those who had held the positions many years. "The tendency to restrict production, which is always

more or less present in all shops, and is brought to a point of perfection in the union shop, is difficult to believe in without having had a chance to contrast the two systems. The men seem to get the idea that their loyalty is to the union and not to the employer, and that anything that can be done to hold back work, to make the production per man as low as possible, is proper and correct."

In the "*National Civic Federation*," issue of September 15, 1904, were published the answers of representative labor leaders to the question: "Will labor make concessions for a shorter work day?" An analysis of the replies indicated that a large per cent. of the writers were willing to make, in return for a shorter work day, the concession, either of temporarily lower wages or of unrestricted output. From a few of these replies I quote: "I believe that organized labor should be willing to remove any arbitrary restrictions on outputs to secure the shorter work day; that they ought to render the best service of which they are capable." (W. R. Farley). "I beg to state that I certainly deem it right that organized labor should grant unrestricted output in return for a shorter work day." (John D. Pringle). "An unrestricted output in return for a shorter work day would meet with my approval, providing the men in the shops, 'the men behind the guns,' received the encouragement given the superintendents and others higher up." (John Bradley). "I believe that a shorter work day would result in better social conditions, but no concessions of lower wages. I don't believe in an unrestricted output." (Thomas McDowell).

These replies, from representative labor men, consti-

tute an admission of the limitation of output; much more to the same effect might be quoted.

The answers which I have seen given by prominent union men to the foregoing charges are not convincing to the employer. Either the effects of inexorable economic laws are not understood, or are willfully ignored. It is apparently difficult to obtain a clear and dignified statement of labor's position on these important laws. If President Gompers, James O'Connell, James Duncan, John B. Lennon and others fairly express the best thought of unions on all the foregoing charges, the employer of to-day has no rational answer to his objections to the closed shop, offered in good faith and with a desire to meet real conditions. The closed shop cannot be conceded.

SECOND, THE SHOP CLOSED TO UNION MEN I may frankly say that, except as a war measure, I am as opposed to this condition as to the "closed shop" of the union as being equally unjust and un-American. There are, no doubt, examples of this class in successful operation to-day. I cannot, however, believe their condition stable, or that they suggest any ideas which may assist us. More employers "believe a shop closed to the union men to be exactly as unjust and unlawful as to one closed to non-union men." There are few present-day employers who would state that unions should not exist. Granting their existence, the closed shop of the employer should not exist, except as the war measure in case of strike above suggested. The employers' closed shop is equally impossible.

THIRD, THE SO-CALLED OPEN SHOP. As usually found to-day it means, in the end, unless organized labor is met with an equally well organized and powerful employers' association, a "closed shop." The chief reason for this

condition seems to arise from the inability or unwillingness of union men to abide by the implied contract which exists, or should exist, in such a shop, the terms of which are that the employer shall make no distinction between union and non-union men; shall impose no objection to the men joining the union and shall in no way interfere with the reasonable exercise of the functions of the union or its officers, and that the union or union men shall do nothing tending to in any way interfere with, or restrict, the free initiative of the non-union man. There is, no doubt, ground for argument that certain employers fail equally in their recognition and observance of this contract. In the so-called open shop a most important difficulty appears to be that it tacitly admits union men, and that, to a certain extent, recognition is thereby given the union and union officers, who become spokesmen for the men, in the case of misunderstandings which may arise. Of this recognition Professor Nicholas Paine Gilman, in his "Methods of Industrial Peace," writes as follows: "But this recognition does not necessarily mean that only unionists may be employed by such employers; this is quite a different matter. It is not a "recognition" of the union, but a submission to it, implying a non-recognition and exclusion, in fact, of all non-unionists. This attempt to make the employer an active ally of the union is a virtual confession by the unionist that he has not perseverance enough to convert the non-unionist and, therefore, wishes the employer to fight his battles for him." Even though no more "recognition" is accorded than at first suggested, the effect upon the non-union man is discouraging, and the actual results are that in an open shop, as is usually found where the unions are even fairly well represented, the

non-union man does not stay. An employer writes: "From my experience in manufacturing in Chicago, I believe there is practically no difference between the closed shop and nominally open shop. The non-union man stands no show in the nominally open shop. His life is made so miserable, if not by violence, by small, annoying persecution, and by social ostracism that he will not stay. This class of persecution is so skillfully carried out that, in the majority of cases, the employer cannot locate or prevent it. The agreement idea is utterly worthless. So long as the agreement operates in favor of the union, everything goes along smoothly, but the moment an attempt is made to construe any question so as to give the manufacturer protection, the union official at once says that he cannot control his men. The only way a manufacturer can secure his rights under an agreement is by facing a strike. A strike may not come; it is an ever present possibility, and the employer, nine times out of ten, will put up with rank injustice rather than take the risk. The ideal condition would be the open shop where union and non-union men could work peaceably and pleasantly side by side. There is no question but that a great many skilled workmen belong to the union, and it would be most desirable to be able to draw from that body of men without feeling practically certain that it would lead, sooner or later, to a closed shop. While in any well regulated, fairly well managed shop, union men and non-union men can work amicably side by side, if let alone, the moment there comes a preponderance of union men, the pressure of union officers is so great that the old story of persecution and annoyance begins. I am a firm believer in grievances of any kind among the men being

listened to, corrected promptly and fairly, and in the vast majority of shops I have no doubt that this would always be done. The trouble comes from a grievance that is manufactured outside of your shop, and is forced upon the men against their will by leaders who have to make a showing of some kind in order to hold their positions. I can conceive of ideal conditions with the union, officered by intelligent, conservative and honest leaders, when the terrible annoyances that now exist would be done away with, but the time certainly has not come for this yet."

Possibly the opinions received are influenced by local conditions, as the majority of my correspondents were local employers. On the other hand, doubtless many employers would, could they do so, find occasion and pretext for discharging the union men, or at least the agitator, and this open shop would then become the employers' closed shop.

Open shops may be successfully operated at other points; they are not successful here as at present conducted. Though not fully meeting all requirements, still with a complete organization of employers, equal in extent and power to that of the employees, many abuses now found in the open shop could doubtless be corrected, and it is certainly a step in the right direction. Wholly satisfactory conditions may be purely theoretical, these, to my mind, are found in

FOURTH, THE TRUE OPEN SHOP. This, if it can be successfully operated, safeguarding the interests of employer and workman, be he union or non-union, I think we all believe, affords the most likely field for the individual and collective rights of all. As suggested in the preceding definition, the chief difficulty appears to be the unwillingness on the part of either one or the

other, the employer or the workman, to faithfully fulfill the terms of the implied contract. A brief statement of an attempt to operate under an agreement, under well defined and well understood lines, may illustrate the particular difficulty intimated.

During what proved to be fruitless negotiations with an international organization of union labor some months ago, it became necessary for me, as President of the Chicago Metal Trades Association, to state my position on the question of agreements. This statement was as follows :

Regardless, however, of the outcome of the present difficulties, or our apparent failure to operate successfully more than a single year, under agreement, I still maintain that the premises upon which we based our efforts are true.

First—Unions are a natural result of economic conditions and are here to stay, for a time at least, and longer than any one can predict—possibly until the tendency toward other forms of control is also met.

Second.—Employers' associations cannot destroy unions.

Third.—No progress has been made toward the ultimate solution of the problem, by any purely "fighting associations." Citizens' alliances and employers' associations have afforded effective relief and have corrected many abuses, but they have not disposed of the union, or the question of relations between employer and employee.

Fourth.—Fair agreements, based upon accurate data, honest relations, varying conditions, and upon arbitration (with all its present limitations)—where necessary, suggest far more rational solutions than strikes and

lockouts, intimidation and injunction, with their attendant cost, hardship and engendered hatred.

Most unfortunately and to our sincere regret, the negotiations resulted in an absolute unwillingness and final refusal, on the part of the International Association, to make any concessions, as to decreases in wages, removal of limitation of output, or of increased production, at a time when we stood ready to show, by our costs, expense sheets and other data, that such concessions were reasonable and justified. Nor would they submit the question to arbitration, though this was offered.

It apparently was not recognized that an agreement, if to be a satisfactory method of mutual operation, must work both ways. That decreases must be provided for in times of depression, as well as advances in times of plenty, that, in other words, an agreement is a contract involving mutual obligations and benefits which, of necessity, must vary with changing economic conditions. Collective bargaining cannot always result in wages being increased, and until decreases can be peacefully provided for, when conditions justly warrant them, no hope of a mutually satisfactory adjustment by its means, can be conceived. The attitude of the employer of to-day toward the true open shop, is not that of his predecessor. He has learned the lesson taught by unions, has been educated upon the subject of sweat shops, shorter hours, sanitary shop conditions, and the abuses of heartless task-masters, and realizes, more fully than ever before, his obligations to the men in his employ and to society.

A president of an organization, employing a very large number of men, in fact one of the largest employers in the United States, in a recent conversation,

stated to me "that the present day employer, if he had been observant, had not failed to learn, from what trades-unionism had taught, that the old remedy of the incompetent superintendent, to correct results of bad methods, ignorant shop practice and wastefulness, by reductions in productive pay-roll, was vicious and ineffective. That labor's wages were the last thing to be touched. That dividends, officers' salaries and the expense account, were the proper places for ordinary retrenchment." His company, though frequently a central figure in labor troubles in years gone by, has not had a strike of any magnitude in several years.

I shall not attempt to suggest conclusions which might be drawn from what has preceded. I have never seen any solution of our present difficulties proposed, which appealed to me as being wholly practicable. Our present methods of warfare may be necessary in the inevitable evolution, but though they may bring about the necessary *conditions* for final adjustment, yet in themselves they cannot bring peace. Unions cannot destroy employers' associations nor can citizens' alliances dispose of the Federation of Labor, even were such a disposition, of one or the other, desirable.

I believe with Herman Justi that "industrial peace cannot be preserved, with labor organized and capital unorganized", or *vice versa*. Therefore, collective bargaining must prevail, protecting not only the employer and the union man, but the non-union employee and the general public as well. But I am forced to admit that apparently neither side is ready for such action. Many employers are bitterly and apparently unalterably opposed to agreements of any nature with organized labor. Labor's position on the agreement

may possibly be indicated by the following: In the "*American Federationist*" of February, 1904, in an interview with Frank G. Carpenter, and in answer to the following question: "What is the present outlook as to labor, Mr. Gompers? Times have been good. There have been many strikes and wages have gone up. It is now said that times are becoming bad. Will they not go down?" Mr. Gompers replied: "I don't think wages ought to be reduced in consequence and I have advised our Unions to resist all attempts at such reduction. I advise them to strike against any cut in wages and I think the employers should see that such cuts will increase the bad times rather than lessen them."

During the Stock Yards strike, in this city, only a few months since, Cornelius P. Shea, President of the International Brotherhood of Teamsters, said,—and, though the statement was widely published, it was never disclaimed—"I do not consider anything a violation of an agreement, that is done to uphold the principles of trades-unionism."

With both sides apparently so unwilling to grant the necessary fundamentals, what can agreements offer for either the closed or open shop, depending as they must upon a fair consideration of economic conditions?

Notwithstanding our inability, at this time, to see how it is to be accomplished, or what agencies are to bring about conditions protecting the interests and happiness of all, I have an abiding faith in the patriotism, education and fairness of the American employer and employee, whether union or non-union, and in the all-powerful influence, for the right, of public opinion, and that our country was pre-ordained to successfully solve this as well as other economic problems, and it is our

highest duty, not only to assist in the efforts being made to reconcile these apparently antagonistic interests, but also to look hopefully for such a result. To quote Dr. John G. Brooks in his "Social Unrest": "To make men believe in the fatalities of this social warfare, is the deadliest work in which any human being can engage. To make men disbelieve it, by organizing agencies through which the luminous proof appears that men can do their work together, with good-will, rather than hatred in their hearts, is as noble a service as falls to us in this world."

The hope lies in the "True Open Shop." This implies an education upon many subjects, on the part of both employer and employee, which does not at this time appear. There are wrongs done and suffered by both. The employer does not himself obey the laws he would invoke, and the workman adopts, in many instances, the methods which his union was formed to combat; yet I see no final ground upon which all can peacefully stand than that conceivable in the "True Open Shop."

THE OPEN SHOP VERSUS TRADES UNIONISM

THOMAS I. KIDD

Since history first recorded the acts of man there have been two distinct classes in society; employers and employed. Between them there has been an irrepressible conflict. Ever since the institution of the wage system, the worker has continuously struggled for liberty. His instinct told him that his menial condition was born of injustice and his reasoning impelled him to strive for freedom at any cost. Every advance step that has been gained by labor has been stubbornly contested by capital. Slavery and serfdom gave way only after much effort on the part of the employing class to make them permanent institutions in industrialism. Slavery and serfdom were wrong and being wrong they had to yield to the enlightened views of the advanced thought of the time and the demand of labor for greater recognition.

To secure justice the workers organized, but time and again their unions were declared illegal and came under the ban of the law. The ancient workmen, or at least those of them who were free men, persistently agitated to have these bans removed and in time succeeded. To make their success possible they organized instead of unions burial and benevolent societies, but these institutions were nothing more than trade unions in disguise, having for their objects the abolition of slavery and serfdom, and improved conditions for those who were free.

It being taken for granted that every concession secured by labor has been wrung from capital and that every step forward has been bitterly contested, is it surprising that those opposed to labor at the present

time should clamor for the so-called open shop? Charges of all kinds have been hurled at labor unions. They have been denounced as arbitrary, illegal and curtailing the freedom of the individual. In line with these charges the union is accused of ordering a limitation of output on the part of its members, instead of encouraging workmen to give the best services of which they are capable. This is alleged to be one of the reasons why employers of labor insist upon the open shop. It would be foolish of me, as a representative of organized labor, to deny that in a few organizations rules governing the amount of labor the members shall perform exist, but it is questionable if it is fair to put the entire blame for the limitation of output on the part of the organized wage workers. Wherever it obtains, its introduction can usually be traced directly to the avaricious greed of the employer, who desiring to exact the maximum amount of labor from his workmen for the minimum amount of pay, introduced the pace maker. The pace maker was an unusually swift workman. He was paid a trifle more per diem to rush the work and induce others to follow him as closely as possible. The result of this policy was that the average workman was driven beyond the limit of human endurance. The limitation of output became therefore necessary in the estimation of those who believe in giving a fair day's work for a fair day's pay. It may be that on adopting a rule limiting the output the union went to the other extreme. Be that as it may, it is safe to assert that had there been no pace maker there would have been no limitation of output. The one is the inevitable result of the other.

Those who are opposed to the so-called closed shop, a term invented by the opponents of organized labor, and

which is rejected by unionists generally on account of the well-founded belief that the term is misleading and is meant to take the place of the more appropriate term "union shop", wilfully misrepresent the aims and aspirations of the majority of union men. Few there are who believe in limiting the output and in nearly all shops where the recognition of the union obtains the limitation of the output is practically unknown.

The term "open shop" is also misunderstood. In union circles it has existed for years and was known as a shop open to union and non-union men alike, although many of the shops were really union shops. In the government printing office in Washington, for instance, non-union men are hired, but they invariably become members of the union, yielding to the persuasions of those who hold good standing membership in the ranks of organized labor. The government realizes the right of the men to organize and the right to make government shops closed institutions if they have power enough to induce the non-union men to cast their lot with them, and it is safe to assert that were the government employees not organized their hours of labor would be longer, their wages lower and their conditions of employment less congenial than they are at the present time.

Another one of the many reasons heralded broadcast against the union shop is that when an organization has jurisdiction over a plant it limits the number of apprentices and deprives the American youth of the opportunity of learning a trade. This is true in a very few instances only. In most organizations a very reasonable proportion of apprentices to journeymen is permitted. As a matter of fact the number of apprentices allowed is so generous that some employers refuse to take advant-

age of employing the full quota of apprentices to which they are entitled on the ground that they suffer a pecuniary loss in teaching them the trade. Where the apprentice rule is stringent, however, there is usually a very good reason for its enforcement. In some industries a boy can do almost as much work as a man after serving a year or so at the trade.

Machinery has robbed many industries of the old-time skill required by the artisan. The logical outcome of a lack of an apprenticeship system would be that boys would fill our shops and factories at a much lower wage than is now received by men. The men would be walking the streets in a vain search for employment. This might result in lessening the cost of production to some degree, and to that extent the public might be benefited, but society on the whole would lose more than it would gain. Admitting that it is an important question to cheapen production wherever possible, if the cost has to be reduced at the expense of American manhood and American womanhood, it were much better that it be not reduced.

If the union shop is to be superseded by the "open shop" what will be the inevitable result? The check which the union rules have placed upon the unscrupulous employer will be swept aside. Under the union rules he has been compelled to pay equal wages with other employers, thus placing all on a fair competitive basis as far as wages are concerned.

Will the employer benefit by the open shop and a general reduction in wages, which is the real object of the open shop policy? Will he not rather suffer because of the fierce and unrestricted competition which must inevitably follow a condition where no standard of wages is set? Is it not a fact that this competition be-

comes fiercer the further down the scale we go? Is not the union shop and the minimum wage scale an actual benefit to the employer who desires to be fair by placing his unscrupulous competitor on an equal footing?

What of the union on the other hand? Will it not be driven to one strike after another, striving to again force recognition, so that instead of the open shop being an aid to industrial peace it will prove the opposite? The comparative peace which we now see between the railroad managers and the Brotherhood of Locomotive Engineers was brought about by continued striking in the early stages of the organization.

The policy being advocated by some employers in connection with the open shop campaign can never bring industrial peace. Where there are no contract relations between employer and employed it implies a condition where there is no freedom. If the employer is to be the sole judge of working conditions, his employee is a serf. Such absolute power cannot last, and this applies with equal force to the union that draws up an ultimatum which it forces the employer to sign through a threat to strike. Either condition shows an absolute power which opens the way to tyranny. Can the employer be intrusted with absolute power any more than the labor union?

The advantages which have been secured by labor unions, have not been secured without sacrifice. They do not propose to return to the old conditions without a struggle. They have paid too high a price for what they have gained to give it up willingly. In other words, they have tasted the joys of a higher standard of life, and they mean to maintain that standard in spite of the opposition of those who, by their greed and avarice would seek to debase American manhood on a plea of cheaper production.

DISCUSSION

ON PAPERS OF COMMONS, BROOKS, HIBBARD, AND KIDD ON THE OPEN OR CLOSED SHOP

EDWARD A. ROSS: I think we ought to rule out of this discussion all considerations of abstract right. On the one hand, you can say, "Of course, men have the right to sell their labor under any conditions they may attach to that sale, even if one of those conditions is that they shall not be required to work alongside of non-union men." On the other hand, you can say, "Surely a man's right to work ought not to be dependent on his membership in any organization, and certainly a non-union man ought not to be attacked over the shoulders of his employer."

We can get nowhere by arguing from these pre-conceived rights. The only way to reach trustworthy results is to consider how the thing will work out, what will be the social effects of the closed shop? So I shall address myself to this question: Should a court that has before it a trade agreement, providing for the employment of none but union men, pronounce that agreement contrary to public policy?

I conceive it to be to society's interest that the buyers and sellers of labor shall be on such footing that labor receives its true market price.

Now, I confidently venture to state that without joint bargaining, labor will be habitually underpaid, and I believe, that, in fact, most labor is underpaid in the great employing industries where labor has not yet become organized. The price of any article depends partly upon the shape of the supply and demand curves,

and partly upon the relative bargaining power of the buyers and sellers. But the working man, because he is a poor man, because he can not wait but must sell his labor to-day since the labor he does not sell to-day he can not sell to-morrow; and because it is more important to him to dispose of his labor than it is to the employer of two thousand men to secure that particular man's labor, is at a very great disadvantage as a bargainer.

When men pool their labor and offer it in large batches, many of these disadvantages are overcome. As the parties to the contract thus approach equality in bargaining power, the complexion of demand and supply begins to control the situation entirely, provided, of course, that the combination of labor does not carry with it an artificial restriction of supply. It is only with this approach to a situation in which the shape of the supply and demand curves controls the sale of labor, that the laborer begins to realize the true market price of his services.

I deny, therefore, that the price realized by unionized labor is either a fancy price based upon some Utopian conception of what labor ought to have in a just commonwealth, or a scarcity price based upon an artificial restriction of supply such as is practiced by certain trusts. It is really the true market value of what is being sold. The wage you find paid where the individual bargain prevails is, on the contrary, not the true competitive price of labor, but is a veritable underpayment of the workingman.

Now it seems to me so important that the sellers of labor should equalize themselves in bargaining power with the buyers of labor and therewith command for their labor its true market worth, that if you can show

me that the closed shop is essential to such a condition, I approve of the closed shop.

The papers read this afternoon, especially the papers of Professor Commons and Professor Brooks, seem to make it clear that in many cases and in many trades it is impossible for labor successfully to carry through the collective bargain principle without the closed shop. If such is the case, what hollow mockery it is for us to approve the purpose of labor organizations and yet deny them the use of the only legitimate means by which they can fulfill that purpose!

Because the world echoes with the steady march of combining capital, the employers never think of trying to make a point against the organization of labor. They know it would be idle to do so. But because the means whereby associated labor attains its purposes are different from those whereby associated capital attains *its* purposes, they find it good tactics to center their attack upon the peculiar means the labor unions employ. But it seems to me that if these means are not illegitimate, and if it can be shown they are necessary for bringing about equalization of bargaining power as realized on the joint bargain, they ought to be countenanced.

Our professional brethren, the economists of England, from 1820 to 1870 made many mistakes which injured the cause of workingmen. With their wage-fund doctrine, their narrow application of the Malthusian theory and their denunciation of the trade unions, they unwittingly and innocently wrought labor much harm. Let us see to it then, that at this crisis in the movement for collective bargaining we too, do not make a mistake for which we shall later have to heap the ashes of humiliation upon our heads.

TOWNER K. WEBSTER: Robert Louis Stevenson has said that "Education is two fold, to know and to utter." The business man who undertakes to arrange his thoughts and to make public utterance of them finds himself greatly handicapped, because it may be his business to know but it is not his business to utter, and therefore it may be that we who are manufacturers may know a great deal about the industrial condition and yet find it very difficult to present our thoughts in proper shape.

With this apology for the blundering way in which I may state my thoughts, I will say that I think, that, under proper regulations, the closed shop, or in more proper terms, the contract shop is not against the interests of the manufacturers. To ask the union man to come together with the employer on the open shop is like asking a man to attend his own funeral, which I do not think he would enjoy.

My first reason for standing for the contract shop is that I think the union stands as a great middle wall between the small manufacturer and the great overwhelming power of organized capital. When I see these great combinations with their tremendous power of organized wealth and note how rapidly they can work, how they are able to overcome all opposition to their will, whether their will be for purely selfish purposes or not, when one can not help noting the great power they have in influencing legislation, I ask myself what is going to oppose them if we have no great organized union to stand as a middle man between us. If the union accomplishes nothing else but to stand up and say, Now, we are going to oppose this thing because it is against the common good, I say if organized labor in the form of the union only accomplishes this, it has

accomplished something for the good of the whole country.

My second thought is that a union of some kind is sure to be a factor and therefore I say let us do all in our power to have a good union. I know some people say that there cannot be a good union, but I believe there can be. Because the government of Chicago at times had been very bad, shall we say that we will have no government.

I am willing to concede that the unions in Chicago have done a lot of bad things and deserve the bad name that has become fastened to them, but you must remember that most of the unions that have this bad name are unions where the employers only employ men occasionally. If an employer has a deal with a union for five, ten or twenty years he can get some hold on the men, but when the employer uses men today and tomorrow it rains and they have to go and get another job, there is no opportunity to get hold of the men and there is practically no relation between the employer and employee. One must remember that these fellows who are floating round picking up jobs here and there, have a pretty hard time of it, and one must not expect them to be of a very high order of intelligence.

I do think, however, that it is possible for the regular trades to have good unions and the only way to do it is to join together, the employers standing for the good there is in the union, and against the bad that is in the union. For instance, it is to the interest of the union as well as of the manufacturer that the limitation of output should be opposed and defeated wherever it appears and if it be necessary to have a strike on a question of fundamental importance, as the limitation of output, one must be willing to put his hand in his

pocket and lose thousands of dollars rather than give in to a demand of this character, which not only will greatly injure the employer, but will also have a reflex action on the union, making the workman practically a thief against his employer.

This does not mean, however, that it is right for an employer to have a pace maker and insist on the days work being more than any ordinary or average man can do.

The union gives this great advantage that through his organization the employer, or body of manufacturers, has something to work on. You can influence the body of men through their union as you cannot do in any other way. I have had, personally, some very pleasant conferences with the heads of unions, and some rather unpleasant ones, but one must remember that you cannot influence the laborer except through an organization, so I say if the open shop would, as I fear it would, disintegrate the union and break it up, I am against the open shop.

My third thought is that we cannot have a good union unless it is a strong union; strong enough to carry out its contracts and to discipline its members. One of the greatest difficulties with the unions has been that they have entered into contracts and have not been strong enough to carry them out. Neither have they been able to discipline the members who have failed individually to obey the instructions of the union. If an employer enters into a contract with an individual, a corporation or a union, he must know that this contract will be carried out, and until the union becomes strong enough to enter into a contract and deliver the goods as agreed, troubles on both sides are bound to multiply. But if along conservative lines, the manufacturers can

lend their influence to build up a strong union that can make a contract and live up to it, it will certainly be to the benefit of the whole industrial condition.

My fourth thought is that the union is a good thing for the employer because it puts all the manufacturers on the same basis as regards wages. This, of course, is a very important thing to the manufacturer for each one knows that the other is paying the same prices and each knows that wages will be the same for a given time, which is not only a good thing for the men but a good thing for the manufacturer, because he knows exactly what he can depend upon both as regards his competitor and as regards the market for a given time.

In the fifth place, it seems to me that every fair-minded man must acknowledge that there is no hope for the working man except in his union. Put yourselves in the workingman's place in the factories as they are now. It is not as it was twenty-five years ago. Twenty-five years ago the manufacturer employed say six or eight men and often worked with them. To-day he employs 600 or 800 men and does not know anything about them. In the company of which I am president, I can well remember the men I employed and worked with twenty years ago, but the man I employed last year I know nothing about. Under these conditions we cannot live close to the man who is working, and unless he is joined in some kind of an organization, he is sure to be cut down in wages and hours, dependent as he is on the selfishness and greed of the man that he works for, who, unless he is restrained, will certainly only pay what he feels compelled to pay. I must confess that while I am interested in wages and profits, I am tied up to my fellows. I think it is a great deal better to have 1000 men happy than to have one man

happy. It is a great deal better for the American people, who are growing rich faster than any other nation in the world, to have these riches distributed a little better. I have no doubt that Carnegie is doing a great deal of good by putting in his libraries, but I never can fail to believe that if a part of that \$300,000,000 had been distributed among 10,000 workmen, it would have made 50,000 people happier, and that from these 50,000 people would have come several men just as great as Carnegie if they had had the same chance. I have never seen in my experience the man I would trust with a big payroll and say, now if you can cut this down 10% and get \$500 a week out of it, but that he would do it. There have been a great many good men in the world but I do not believe there has ever a man trod this earth, excepting Jesus Christ, whom one could safely trust with the wages of the workingmen under these conditions. When we consider what corporate greed is and what it would do if it had the chance, I say let us have unions as a restraining influence. I am afraid of what some manufacturers mean when they talk about the open shop. One must remember that unless the union can offer something to a man he will not go into a union. Unless the union can offer to the worker better wages and shorter hours, and to some extent carry out its promises the union will fail. Therefore, I am afraid, if many of the ideas adopted by some of the manufacturers were carried out it would simply mean the death knell of the union. ✓

Now, in the last place let me say that it seems to me that good government is dependent on a working population making a fair wage. Did you ever consider that out of the two million people in Chicago, 600,000 of them are workers, men working with their hands, and

that this 600,000 represents at least another 600,000 who are dependent on them for the bread that they eat. Many people say that if you have good citizens you have good government, but I am inclined to put it the other way, namely, that bad government will always make bad citizens. With 200,000 voters among this 600,000 laborers did you ever think what the result would be of putting these workers down to \$6.00 and \$8.00 per week; what they would mean to our government? Why, it would not be a year before the great labor vote would be exploited and the independent vote would be entirely eliminated and we would find ourselves back where we were ten or fifteen years ago, where if we wanted anything done or any laws passed, we had to go in and put up the price.

In conclusion, I simply want to say that in order for the employer and the union to come together, as they must come together, the union must, first, grant a fair day's work for a fair day's pay. No reduction of output can be allowed. This is the corner stone of the edifice. Second, a man must control his own property and be supreme in the conduct of the business. Third, if the union will grant the two demands named above, I believe that wages will take care of themselves. We had a variation in the price of pig iron in the years 1901 and 1902, from \$13.60 to \$28.50 per ton, yet no one was hurt particularly, whereas in the six years from 1897 to 1903, the average advance in wages was only 10%, so I think I am justified in saying that wages will take care of themselves.

Lastly, I will say that we are bound together, the workmen and the employer and let no man put us asunder, but let us all work to the end that prosperity and happiness may be attained by all.

GEO. E. BARNETT : In the papers read, two different lines of discussion have been followed. Prof. Commons and Mr. Brooks devoted their attention to a consideration of the closed shop as a part of trade union policy, while to Mr. Hibbard and Mr. Kidd, the question at issue is not the closed shop as such but the conditions prevalent in such shops.

The opposition to the closed shop, as thus indicated, is made up of two groups. One class is opposed to the principle of uniformity. To them the closed shop is undesirable because it is a powerful mechanism in securing uniformity. Another class, probably the larger, is not antagonistic to the closed shop as a part of the union's mechanism in maintaining collective bargaining but to certain rules enforced by this mechanism. In many trades, the unions, unable to secure the closed shop throughout the industry, permit their members to work in open shops, requiring only that they do not violate the unions standards of wages and hours, while in the closed shops in the same trade the union enforces in addition regulations, commonly known as shop rules or practices, concerning the number of apprentices, shop management and other details. Since these rules are not enforced in open shops, the closed shop has become the centre of an attack, primarily directed against the shop rules of the unions.

The present widespread dissatisfaction with union shop rules, reflected in the demand for the open shop is largely the result of the method by which shop rules are framed. At a very early time local unions and later national unions found it expedient to submit proposed changes in wages and hours to the consideration of employers. The formulation of shop rules has, on

the contrary, been quite commonly regarded as a prerogative belonging only to the union.

The explanation of the distinction thus made between shop rules and other parts of the labor contract is to be sought in the historical development of the practice of conciliation. Before conciliation can be highly developed in any trade, co-extensive and effectively organized associations of employers and of employees must be formed. The organization of employers has followed at a distance the organization of their employees. When the supreme authority in the trade union world was the local union, the employers had no organizations. By the time the employers had developed effective local associations, the centralization of trade-unions in national governments was far advanced. This inequality in development has been at times a serious obstacle to conciliation. Especially is this true in the case under consideration. Shop rules have passed under the control of national unions more fully than questions of wages and hours. When the national union began the formulation of shop rules, there were no employers' associations of national scope. Conciliation was consequently impossible, and the rules were framed solely by the union.

A long experience in the formulation of shop rules by legislative fiat has bred among many trade unionists the feeling that these rules are something different in character from wages and hours, and concern the unionist so nearly that he cannot submit them to conciliation or arbitration. Illustrative of this feeling, was the response of a great American trade union to a demand for the arbitration of certain of its shop rules: "The constitution and by-laws of this union like those of the United States government, represent what the members of this union believe to be principles that

cannot be arbitrated and their arbitration was never contemplated. They are necessary to the life of the organization and must be maintained." According to the constitutions of many unions, shop rules are enacted in the same way as laws relating to the internal affairs of the union. Naturally, the union will not in a day alter the habits of years. The reconstruction of the organic law in such a way that shop rules may be put on the same plane as questions of wages will require time.

Some of these rules may be indispensable to the maintenance of collective bargaining but ultimately the unions must recognize that the greater part of their shop rules are as much elements in the wage contract as the rate of wages or the length of the working day. The theory that the union has the sole right of determining such rules cannot stand the test of the unionist's own logic, and the conservative men in every trade will throw the weight of their influence against such a principle.

Shop practices in a few trades are now regulated by joint boards of conciliation. The highly successful agreements concluded by conciliation between the iron molders and the stove manufacturers cover shop rules. A recent agreement between the pressmen and the Typothetæ provides for the settlement of shop practices by a joint conference committee. In these trades, the employers have declared their adhesion to the principle of uniformity and the employees have submitted shop practice to conciliation. In neither of them, is the open shop an issue. In other trades, it is a well established principle that contracts with employers are not affected by shop rules enacted subsequently to the mak-

ing of the contracts. The wide use of the system of formal contracts in such trades will undoubtedly have a powerful influence in extending the view that shop rules may properly be subjects for conciliation.

The one-sided formulation of shop rules leads necessarily to the enactment of unreasonable and arbitrary rules even in cases where it is the purpose of the union to remedy undoubted evils. Unjustifiable rules frequently prevent the unionizing of establishments since many employers who do not oppose the principle of uniformity are strongly averse to conducting their establishments according to regulations, in the framing of which they have no voice. So far from strengthening the union in its larger purposes, this method of forming shop rules limits the area over which the union can establish uniform pay and hours. The recognition of this fact will strengthen the hands of those who advocate the extension of conciliation to cover such rules.

On the other hand, those employers who do not object to unionism but to the union's rules must recognize the conditions necessary for the introduction of conciliation with reference to shop practices. Foremost among these conditions is the organization of employers' associations capable of bargaining with the unions. In the meantime, unnecessary friction will be avoided if employers take care to understand the limitations within which the unions work. It is useless, for example, for a local employers' association to demand that a local union arbitrate a national shop rule.

There are then two roads, by which it is possible to get rid of objectionable shop rules ; the one by securing the open shop with such rules as the employer sees fit

to enforce; the other by extending the method of conciliation to cover shop rules. The latter appears to be in line with historical evolution; the former is along lines which have heretofore led only to temporary adjustment. If the closed shop is broken up in certain trades, with it will go those uniformities in pay and hours which it has been a chief mechanism in enforcing. If, on the other hand, shop rules can be settled by conciliation, the chief abuse of the closed shop disappears and the question becomes unimportant.

H. R. SEAGER: The most striking fact revealed by this discussion is the wide diversity of views entertained by the speakers. This indicates that the closed shop suggests very different pictures to different minds, and this can only be because in practice it means very different things in different trades. In some it has meant a close monopoly for the closed union which has succeeded in securing it. It has led to intolerable trade union dictation and to a reaction in which employers band together, as they have been doing all over the United States during the last three years, to insist on the open shop. In others it has meant merely the definite acceptance of the system of collective bargaining. Employers have come to the conclusion that it is to their best interest to recognize the union and to make the union responsible for strict compliance with the conditions of the collective bargain by employing only union men. On their side the unions have felt justified in insisting that every competent man in the trade should belong to the union so that the trouble and expense incurred for the common benefit might be shared by all alike. When a term calls up such different pictures in different minds, the way is open for all possible degrees of misunderstanding.

The "open shop" is just now a convenient rallying cry for drawing together intelligent and fair-minded employers, unreasonable employers of the "smash-the-union" type, and certain observers representing the general public. When the smoke of battle has cleared away I think we may confidently expect at least one important result. The union shop has assumed its worst form when there was no employers' organization to oppose arbitrary trade union demands and when the policy of the union has been to limit its membership through unreasonable apprenticeship rules, or initiation fees, or by means of unfairly conducted examinations to test the fitness of a man to carry on the trade. The open shop crusade has brought into being employers' organizations from one end of the country to the other; consequently there is little reason to anticipate a return to the worst forms of union dictation from which some trades have suffered in recent years.

On the other hand, the conviction is growing that combinations of workmen like combinations of capitalists need to be controlled if the public interest is not to suffer. Labor organizations are admirable; labor monopolies are pernicious. To foster the one and to oppose the other the law must intervene to insist that the rules and policies of organizations shall not limit membership in an unreasonable way. It is not the closed shop so much as the closed union that has justified the open shop crusade. The open shop is, to be sure, one means for opposing the closed union, but its introduction in certain trades means retrogression rather than progress. In such trades a better plan would be to attack the closed union directly through the method of legal regulation of union rules, while accepting the

union shop as a convenient device for securing compliance with the provisions of a collective bargain and enforcing discipline within a shop through a system of self-government on the part of the workmen rather than through the interference of foremen and bosses representing the employer. A union shop in a trade in which membership in the union is freely open to all competent men is neither monopolistic nor un-American. On the contrary, it is a long step towards both industrial liberty and industrial peace.

THE ECONOMIC POSITION OF THE AMERICAN NEGRO

The Special Committee of this Association on the Economic Position of the Negro begs leave to submit the following report as a report of progress:

The committee was constituted in the hope that its members, two of whom were then connected with the Census Bureau, might aid in the presentation or interpretation of the important statistical results of the Twelfth Census bearing upon the economic position of the negro. These results have all been published, the last volume and one of the most important, that on Occupations, having appeared during the year 1904. The Census Bureau has also brought together substantially all its information upon the negro in the United States in a bulletin of more than 300 pages, about one-third of it being explanatory or interpretative text. As three of the five members of your committee assisted in the preparation of that bulletin and as a copy of it has been mailed by the Census Bureau to each member of the Council of this Association, it will be treated as a part of our report.

The economic position of the negro is indicated by the occupations followed as a means of obtaining a livelihood, and in obtaining a livelihood the family is a more significant unit than the individual. For this reason an effort has been made by your committee to estimate the approximate number of families mainly supported by each important occupation. In doing so they have hazarded the following assumptions:

1. That the income of a negro family is earned

mainly by the male member or members at least 16 years of age, and that the earnings of children under 16 years of age of either sex and of women are only supplementary. This assumption is admitted to be subject to a wide margin of error. In many negro families in which one or more female members are engaged in laundry work or go out to service but sleep at home and in which the adult male members work at agriculture or at unskilled and irregular labor, the women earn the main income. In many others the men have died or deserted and the women are the only breadwinners. But if there is any man in the family, some occupation, even though it be in reality a nominal one, is usually reported for him. Notwithstanding these sources of error, the assumption must be nearer the truth than its converse and one of the two must be made if any such estimate as we have attempted is to be ventured. The effect of this error upon the following figures would be to make the estimated numbers too large for families supported by agriculture and by various sorts of unskilled labor of men, and too small for families supported by laundry work and domestic service.

2. That all male negro servants (excluding waiters) live in the families of their employers, or if living in their own families were the subsidiary rather than the main support of the family.

3. That all negro males under 16 years of age reporting gainful occupations are members of negro families deriving their main income from some other source than these children.

4. That the 686,000 male farmers, planters and overseers include all the males at least 16 years of age working in the 758,000 negro farm families, the difference in these two numbers being substantially equal to

the number of negro women reported as operating farms.

5. That the 1,586,000 males engaged in gainful occupations, exclusive of children under 16 years of age and servants, because these classes were returned probably in the families of their parents or employers, and exclusive also of the male negroes operating farms, were evenly distributed among the 1,075,000 negro families other than farm families, giving about 15 male negro bread-winners at least 16 years of age to each 10 families.

6. That of the 464,000 male negroes returned as "laborers" without further indication of their occupation, all who lived in the rural districts or outside of places having at least 2,500 inhabitants (a number estimated at 250,000) were agricultural laborers, and should be transferred from the class of domestic and personal service to that of agricultural pursuits.

By the aid of assumptions, of which the preceding are the most important, the approximate number of negro families supported mainly by each great class of occupations and by each of the leading specific occupations has been estimated as follows :

ESTIMATED NUMBER OF NEGRO FAMILIES SUPPORTED MAINLY BY SPECIFIED CLASS OR SUB-CLASS OF OCCUPATIONS, AND PER CENT. DISTRIBUTION, FOR CONTINENTAL UNITED STATES : 1900.

<i>Class or sub-class of occupations.</i>	<i>Estimated number of negro families supported mainly by class or sub-class of occupations : 1900.</i>	<i>Per cent. distribution : 1900.</i>
Total	1,833,759	100.0
Agricultural pursuits	1,334,159	72.8
Operating a farm	758,463	41.4
Agricultural laborers	549,303	30.0
Other agricultural pursuits	26,393	1.4
Domestic and personal service (exclusive of servants)	185,993	10.1
Manufacturing and mechanical pursuits	158,742	8.6
Trade and transportation	133,507	7.3
Professional service	21,358	1.2

**ESTIMATED NUMBER OF NEGRO FAMILIES SUPPORTED MAINLY
BY SPECIFIED OCCUPATIONS, FOR CONTINENTAL UNITED STATES:
1900.**

<i>Occupation.</i>	<i>Estimated number of negro families sup- ported mainly by specified occupations: 1900.</i>
Draymen, hackmen, teamsters, etc.....	44,328
Steam railroad employees	37,034
Miners and quarrymen.....	23,792
Saw and planing mill employees.....	21,706
Porters and helpers (in stores, etc.).....	18,467
Waiters	17,085
Carpenters and joiners	14,203
Barbers and hairdressers.....	12,740
Clergymen	10,417

To illustrate how these figures were obtained, there were 15,364 male negro clergymen reported. The table shows that this occupation is estimated to have furnished the main income for 10,417 families. The difference is due to the fact that, after excluding on one side the farm families and on the other the male farmers and the servants, there are only two-thirds as many negro families to be supported as there are negro males at least 16 years of age in all occupations. If the estimate for clergymen is approximately correct, it would mean that in one-third of the cases the occupation was a subsidiary one to the individual, his main income coming from some other source, or a principal one to the individual but a subsidiary one to the family, its main income coming from some other members. In certain occupations, like that of clergyman, the assumption must be far from the truth, but the series of numbers obtained by its aid is believed to furnish a better clue than any others to the main sources of a livelihood on which negro families now depend and to their relative importance. Thus the census figures show that 54 per cent. of all negro workers and 58 per cent. of the male negro workers are engaged in agri-

cultural pursuits. These figures show that probably 73 per cent. of the negro families are supported mainly by agriculture. For reasons already given we believe that this is an outside estimate but much nearer the facts than the per cent. derived from the unadjusted figures of the census.

It is the opinion of your committee that the census farm returns furnish a better basis for estimating the total accumulated wealth possessed by the negroes in 1900 than is found in the only other source that has been used, namely, the assessor's returns for a few Southern States. The Census Bureau's estimate is \$200,000,000 for the value (1) of the farms, live-stock and implements on the farms owned and operated by negroes, and (2) of the live-stock on the farms rented by negroes. This should be increased by (3) the farm property owned by negroes and rented by them either to negroes or to whites, and also by (4) the farm property other than live-stock owned by negro farm tenants. It should be decreased by (1) the various unknown liabilities against this property in the hands of whites and by (2) the value of the live-stock of negro tenants which is owned by white landlords. It is the belief of your committee that the subtractions would at least equal the additions and that \$200,000,000 may be deemed an outside estimate of the net value of the accumulated property owned by negro farmers. Indeed it seems to us probable that this estimate would be large enough to include also the wealth owned by the 550,000 families of agricultural laborers. In other words, we believe that the total property held by these families is not greater than the legal claims held by whites against negro farm property plus the proportion of the \$50,000,000 worth of live-stock on the farms of negro tenants

which is owned by whites, of neither of which is any account taken in the estimate of the Census Bureau.

If this be granted, then the further assumption may be ventured that the other 500,000 negro families in the United States are no better off on the average in the matter of accumulated wealth than are the 1½ million families occupied in agricultural pursuits. On that assumption the total accumulated wealth of negro families in 1900 was in the neighborhood of \$275,000,000.

An inquiry into the value of the property held by negro churches in 1890 gave as a result \$26,600,000. As the negro population of the United States increased between 1890 and 1900 by 18 per cent. and the number of negro churches only about two-thirds as fast, the value of property held by negro churches can hardly be supposed to have increased during the decade by more than 20 per cent. In that case the value of such property in 1900 was approximately \$32,000,000. The legal claims against it owned by whites cannot be estimated. Nor does your committee see any way in which the amount of property, other than family or church property, held by negroes can be approximated.

The evidence in hand leads your committee to the conclusion that the accumulated wealth of the negro race in the United States in 1900 was approximately \$300,000,000 and probably neither less than \$250,000,000 nor more than \$350,000,000.

WALTER F. WILLCOX,
W. E. B. DU BOIS,
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PAPERS AND DISCUSSIONS

GOVERNMENTAL INTERFERENCE WITH INDUSTRIAL COMBINATIONS

EDWARD B. WHITNEY

I shall not attempt to cover the whole trust question in twenty minutes. I shall assume that, whether for economic, political, social or moral reasons, you desire some higher power to interfere with the so-called industrial trusts,¹ if effective interference be practicable without doing more harm than good; and that you ask me only to express the views of a lawyer, from a legal standpoint, as to what remedies may be available to the Federal Government, which alone is strong enough to grapple with the situation.

True, some lawyers and statesmen of the first rank still argue that all regulation should be left to the States. But they are generally elder men, whose views became fixed under conditions that are passed. No single state is strong enough now. The constitution does not allow any group of states to form an alliance among themselves. It does not allow them to compete with each other; and too of them many compete for corporation patronage.

I shall assume that you wish me to confine myself to remedies which are direct in their operation. I shall say nothing about the tariff, or about special railroad privileges. You are the experts best qualified to tell whether the trusts that have built themselves up with the help of these advantages are now strong enough to stand without them.

¹ The word trust, in its modern and anomalous use, may be defined to mean a combination rich and powerful enough to affect any industry in which it is engaged, and therefore to constitute a political issue.

I shall not discuss any proposition that requires an amendment of the Constitution of the United States. It is now more than a century since the Constitution has been amended by any method that can be repeated in the future. I doubt if there will be another amendment until there is another Constitutional Convention. Certainly there will be none until so far in the future that everything said here to-day will then be obsolete. Until then, the federal power of regulation will apply only to the realm of commerce with foreign nations, among the several states and with the Indian tribes. Until then, if an industrial stays at home and sells its goods there, Congress cannot reach it.

Some industrials however, like the United States Steel Corporation, engage directly in the transportation of commodities between the states. Others, like those in the anthracite coal region, are owned and operated by interstate railroad companies. All probably desire to take part in interstate commerce, in order to sell and ship their goods across state lines. There, if anywhere, is their vulnerable point.

I suppose it to be the orthodox view that the industrial trust is a product entirely of natural conditions. From this the orthodox deduction is that the trust could not have been prevented and cannot be destroyed. Let us see just how far this is true.

The industrial trust of the present day is a corporation, or a combination of corporations.¹ It could not have arisen in its present form under the common law, because the common law did not authorize individuals to incorporate themselves. That it might have arisen in some other force we may guess if we so please, but no experience authorizes us to say so. Probabilities are

¹ If there are any genuine exceptions they are negligible.

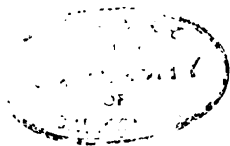
to the contrary. Human nature puts obstacles in the way of joining so large a number of people in a common enterprise, and keeping them voluntarily together. Fuggers and Rothschilds occasionally appear; but only in rare instances would a body of men remain amicable enough, as well as rich enough and wise enough and fortunate enough to wield such great power for a long period without some such artificial tie as a corporation charter.

And even under the earlier and simpler form of corporation, which could not merge with another company or swallow it up, experience seems to have shown that human nature afforded obstacles to the rapid and complete development of the modern trust. As a general rule, until a time within the memory of men now in middle life, two corporations could not merge or consolidate.¹ In New York, for instance, the first authority to merge manufacturing companies was in 1867. It was confined to those engaged strictly in the same industry. It was not broadened until 1892. The first similar authority as to railroads was in 1869 and confined to continuous lines. Lines merely connected were not authorized to consolidate until 1881, and then only if not parallel or competing.

Until the same period, as an almost universal rule, one industrial corporation could not hold the stock of another for control.² In New York, for instance, the first act enabling one industrial to purchase and hold

¹ Morawetz on Corporations, § 940; Sugar Trust Case, 121 N. Y. Reports, 382.

² Morawetz, § 431; *Elkins v. Camden & Atlantic R. R.*, 36 New Jersey Equity Reports, 5; *De la Vergne v. German Savings Inst.*, 175 U. S. Reports, 40, 54-58. The Georgia Constitution of 1877 forbids this in a clause drawn up by Robert Toomba. *Trust Co. v. State*, 109 Georgia Reports, 736.



stock of another was passed in 1853, permitting a manufacturing company to purchase mining stock in certain cases. The principle was extended, but in a very restricted form, in 1866 and 1876. It did not become general, or permit the buying stock of a competitor, for sixteen years later still. In New Jersey the movement began in a very small way in 1883. The present statutes, which permit any company to purchase stock of a rival for control, are more recent even than the Sherman Anti-Trust Law. They were in all probability adopted, although the legislatures did not know it, for the very purpose of circumventing that law. They date in New York from 1892. In New Jersey their development was from 1888 to 1893. Before that the holding corporation, now so familiar, was a rarity.¹

Thus all the trusts are in part a product of artificial conditions produced by human legislation, while some of the most dangerous, or at least the most unpopular, among them are a product of legislation obtained by their own lawyers and legislative agents, put quietly through under the cover of the anti-trust agitation, while the public, led by the newspapers, were looking somewhere else. None of the trusts are Federal in origin. Each derives its claims to power from the statutes of some particular state. By what right, then, can the Federal Government touch them? To answer this question it is necessary for us to recall to mind a few of the elementary principles of corporation law.

Proper understanding of this matter has been obscured by the prevalence of certain notions that seem to me to be fallacies originating, like many other fal-

¹ There are some under special charters, such as the Pennsylvania and the Southern Pacific.

lacies, out of the substitution of names for things.¹ It is common and in a sense proper to say that a corporation is a person. Really, as our courts recognize, it is a number of persons who have received from Congress, or from some other legislative body, a license to act together in a certain way. It is common and in a sense proper to say that a share of stock in a business corporation is a piece of property. Really, it is the evidence of membership in a common enterprise. When an ordinary partnership incorporates itself, the world's valuation is nominally increased by the amount of the capital stock. Really there is no more property in the world than there was before.

Each state, when issuing such a license, may accompany it with whatever conditions it may think best. The corporate powers may be limited. The number of members may be limited. The proportionate share which any one member is permitted to hold may be limited. His proportionate vote may be made less than his proportionate share. Membership may be restricted to citizens. Membership may be denied to foreign corporations, or to all corporations. Conversely, the right to hold membership in other corporations may be denied. All of these things follow from the fact that the whole jurisdiction is exclusively in the incorporating state, which may deny the privilege altogether. Restriction upon the amount of capital stock was in early days almost universal, and there were well known instances of a recognition of the right to restrict membership.²

¹ See authorities collected by the writer in an article on the "Northern Securities Company" in the *Yale Law Journal* for June, 1902.

² The United States Bank charters of 1791 and 1816 each restricted the amount to which a single member could subscribe. The former allowed membership to "any person, co partnership or body politic;"

Furthermore, these licenses given by a state are self-operative only within its borders. It is common to issue a charter authorizing the persons chartered to do business in other states, and as a general rule they are permitted by those other states to do so; but this permission is not universal and it may be withheld. For a New Jersey corporation to do business in Illinois requires the joint permission of New Jersey and Illinois, just as, when the United States sends a consul to a foreign country, he cannot act until to the commission which he brings with him he has added the exequatur which evidences the assent of the country to which he is accredited. With the single exception that, I shall mention in a moment, each state can exclude from doing business within its borders all corporations but those which it has chartered, unless in some special case it may have bound itself by implacable contract not to exercise the right. It may therefore impose upon the admission of foreign corporations such conditions as it pleases;¹ and it may deny admission to all companies so constituted or controlled as not to comport with its own public policy.

Our industrial trusts have all been organized, so far as I am aware, under statutes which reserve to the legislature the right to amend, alter, or repeal.² It is a right the latter to "individuals, companies or corporations." Both restricted the voting power of shares held in large blocks, a practice then common and analogous to that by which some recent charters, following English precedents, classify their stock, giving part much greater voting power than the rest.

¹ Morawetz § 971. A striking illustration is *Doyle v. Continental Ins. Co.*, 94 U. S. Reports, 535. This principle has been applied to the case of anti-trust laws in *Waters-Pierce Oil Co. v. Texas*, 177 *id.*, 28.

² For instances of its exercise, see *Pearsall v. Great Northern Ry. Co.*, 161 *id.*, 646; *McKee v. Maynard*, 179 *id.*, 46; *People v. O'Brien*, 111 N. Y. Reports, 1.

which belongs only to the state by which the license was issued ; but the state in which the corporation does business can likewise revoke its permission to remain, or impose any conditions thereupon. It is at most requisite that sufficient time be given for the corporation to wind up its affairs without calamity.

The single exception to which I have referred is that of commerce with foreign nations, among the several states, or with the Indian tribes. Congress has the power of regulation here—a power which knows no limits except those which are put upon it by the Federal Constitution.¹ Congress itself may grant a charter of incorporation to persons engaging in such commerce.² A state cannot exclude therefrom any corporation which Congress permits to engage in it.³ Congress has always given tacit permission to corporations of the various states to engage in such commerce, but I think that if it shall change this policy and impose conditions upon the participation by a state corporation in interstate commerce, precisely as the states impose conditions upon the participation of a foreign corporation in their own internal commerce, the courts will sustain it. It may indeed have already bound itself to some particular company in such a way that the permission cannot be revoked without paying the company its present value ; but I do not know that any of the industrial corporations hold such a privilege, and Congress would not be obliged to continue unconditionally any merely tacit permission.⁴

¹ Lottery case, 188 U. S. Reports, 321.

² Luxton v. North River Bridge Co., 153 *id.*, 525.

³ Pensacola Telegraph Co. v. Western Union Telegraph Co., 96, *id.* 1.

⁴ Conn. Mutual Life Ins. Co. v. Spratley, 172., *id.*, 602. Of course, as long as interstate commerce remains in the hands of state corporations they must obey the laws of their creator as well as those of Con-

The application of these principles is manifest. Congress in the first place can exclude from interstate commerce altogether that form of trust which is known as the holding company. In enacting a new Interstate Commerce Corporation Law, and excluding all companies which do not conform to the requirements of that law, it may require that no company shall participate, any one of whose members holds or controls, directly or indirectly, more than so much in par value, or so much in proportion, of its capital stock. In the next place it may destroy, in their present form, such agglomerations as the United States Steel Corporation, or the members of the so-called Anthracite Coal Trust. It may do so by declaring that no company engaged in interstate transportation can engage or be interested in any productive industry, either directly or indirectly, by lease, stock ownership, bond ownership or otherwise. If it be true that the result of permitting the same corporation to control the mine and the railroad—a permission which our ancestors would not have given—is that it is enabled to, and does, so juggle its accounts as to deceive both the wage earner and the consumer, there is here a plain remedy. It may be said that some way would be found to evade any such law as either of those I have suggested. To a certain extent this is true. But there would be grave, practical difficulties in the way of an evasion on a large scale. If it had not been for the practical difficulties in

gress. *Louisville & Nashville R. R. v. Kentucky*, 161 *id.*, 677, 701. A passage in the opinion in this case (p. 702) has since been quoted by one of the judges as confirming a supposed theory that the instrumentalities of interstate commerce, as distinguished from interstate commerce itself, are under supreme control of the States (193 *id.*, at p. 383); but the writer of the opinion thus quoted did not concur in the interpretation, nor did the theory receive assent from a majority of the court.

the way of establishing a monopoly without an effective bond to hold a majority together, and hold a minority down, these combinations would never have advanced from the shape of the gentleman's agreement to that of the holding company. And in remembering the evasions of the past, we must remember also that in the past we have kindly provided new laws for the purpose of enabling promoters to evade the old ones.

Dealing with the more simple forms of the industrial corporation, whose only interstate commerce is the shipment of its own goods across state lines by the agency of common carriers, would be less easy. Still, Congress can regulate it by imposing conditions up to just short of where the company would prefer to retire from interstate commerce altogether, each of its factories selling only to jobbers at its own doors. The device of a selling company attached to every industrial, controlled by it through stock ownership, and doing its interstate commerce business, would prove insufficient. A convenient method of regulation would be through the issuance of a license, as recommended by Commissioner Garfield since this paper was prepared.

Of conditions which Congress might impose upon such a license, the first which naturally comes to mind is publicity. Most of the earlier companies, at the time when judicial precedents were being established, were comparatively small concerns, like the contemporary partnerships with whom they were competing. To prevent their being too much at a disadvantage in the competition, a strong tendency developed to preserve the secrecy of their books even from the stockholders. The latter were regarded as sufficiently protected by their ability to put in a new board of directors once a year. Diversity of interest between the directors and the stockholders was

not the rule, but the exception. The injury that the latter feared was from the outside, not the inside. But in the large industrials, with their multitudes of ignorant stockholders, and with boards whose directors may be partly dummies, partly men whose interests are more identified with other and possibly rival enterprises, conditions are altogether different. Control of a company may be more attractive than ownership of its stock. Secrecy may enable the insiders to speculate in the stock upon the market, and play upon the ignorance, the hopes, and the fears of those whom they are supposed to protect. I believe it to be true that the trusts would have been far from reaching their present power if by this precise method certain men, whose talents would not have overtopped their rivals if they had not been accompanied by "a certain fortunate balance between unscrupulousness and respectability", had not been able to reach a degree of power that sufficed for the performance of feats hitherto impossible in finance.

A generation ago, the remedy of publicity would have been decidedly effective in checking the over-development of the trust. Whether or not it is now too late I do not venture to say; but the demand for publicity is now becoming general, and I see no reason why it should not be fully granted under proper regulations, as to every corporation great enough to constitute a political issue. It is indeed true that, if all the stockholders of a great corporation know what is going on, everybody else will know it too. I do not see why we should be afraid of that result. If such a corporation cannot be successful under conditions of publicity, then let it dissolve into smaller bodies. Indeed, the small stockholders of so great a corporation can be protected, and the necessary examination can reason-

ably be made, only through a public agency. There must be money behind the examiner, and this the public can well afford to spend, while there is a limit to the number of hours during which the company can spare the use of its books. By publicity I do not mean the kind intended by the law establishing the Bureau of Corporations at Washington. It may be more dangerous to the public to have the secrets of great corporations shared between their directors and a dominant political organization, than to have them confined to the directors alone.

Another possible condition would be, by reviving a former custom, to restrict the amount of capital stock of any such company, either directly or by imposing a graduated license fee, intended to be prohibitory after a corporation should exceed a certain size. Graduated taxation is allowable to the states, except those whose own fundamental law prohibits it.¹ It is allowable also to Congress, except where it comes in conflict with the peculiar provisions of the Federal constitution as to a direct tax.² But the distinctions which have been drawn between the property and license taxes,³ between direct and indirect taxation,⁴ have left the whole matter in such obscurity that a graduated license fee intended to reach the surplus as well as the nominal capital, as by assessing the stock at its actual value, would doubtless be hotly contested upon constitutional grounds.

¹ *Kochersperger v. Drake*, 167 Illinois Reports, 122; *Magoun v. Illinois Bank*, 170 U. S. Reports, 283.

² *Knowlton v. Moore*, 178 *id.*, 41.

³ See for instance *People v. Home Insurance Co.*, 92 N. Y. Reports, 328; 134 U. S. Reports, 594.

⁴ See for instance the Income Tax cases, 157 *id.*, 429, and 158 *id.*, 601, and cases therein cited; also *Knowlton v. Moore*, *supra*, and cases therein cited.

If the surplus could not thus be reached, a graduated license tax would not accomplish its main purpose. It would merely readjust the relation between par and market value of the stock. Difficulties of this kind complicate the plan of taxing the present trusts out of existence like the old state bank notes.

Irrespective of its ability to impose its own conditions upon the privilege of engaging in interstate commerce, it is altogether probable, although not undisputed that Congress can supplement any state anti-trust legislation by excluding from interstate commerce any article made in violation thereof.¹

Time does not permit discussion of other possible restrictions but requires me to turn away from the things which Congress can do negatively, in order to say a word about what it can do affirmatively. The latter is a subject which has been recently, perhaps, more discussed by others. The most popular panacea has of late been a National Incorporation Law. Constitutional objections it is proposed to evade in two ways.² The first way is by forming corporations in the territories and in the District of Columbia, ostensibly under the power to make necessary rules and regulations respecting those portions of the country,³ but really with intent that they should travel away, just as if they had been born in New Jersey, Delaware or West Virginia, and settle down upon the several states. It is admitted that they would have no better standing there in point of law than if they had really come from New Jersey, Delaware or West Virginia, but it is hoped that they would receive

¹ Analogously to the Federal game law of 1900.

² See the able paper on a National Incorporation law by Prof. H. J. Wilgus, in the *Michigan Law Review* for February, 1904.

³ Constitution, Art. IV, § 3.

at least the same toleration. It is also hoped that they would be so much more honest and respectable, so much better regulated and inspected, than the present trusts, that in time they would supplant them. The second plan is that Congress, under its power to regulate interstate commerce should permit the incorporation of jobbing companies with incidental power to grow, mine or manufacture the articles in which they deal, the assumption being that the whole domain of production can be brought under Congressional auspices as incidental to the business of jobbing, just as railroads incorporated by Congress for interstate commerce are allowed incidentally to carry freight and passengers from one point to another in the same state. The supporters of this plan admit that its advisability is subject to criticism, as its success would so much increase the already rapid rate of centralization at Washington, and so much further burden our already over-burdened governmental system. I think that the criticism is serious, and I think that the constitutional difficulty is serious also. The spawning of corporations for export is not a necessary or even a natural incident to the regulation of the District of Columbia. The productive industries of the United States are not in a very natural sense incidental to the jobbing business. Sustaining this plan would put a good deal of responsibility upon the Supreme Court. I am not sure that the court would accept the responsibility.

I have not discussed the present Sherman Anti-Trust Law because the construction of a particular statute is not very important except to the parties concerned and their attorneys. If this statute is not sufficient, a better one can be enacted. The main difficulties in its construction have been difficulties necessarily inherent in

our Federal system. It is very hard to draw the line between that commerce which Congress may control and that commerce which it may not control, and to which therefore the Federal statute must be held not to apply.¹ The enforcement of the statute has been slow, and we do not yet know how far it would go toward the accomplishment of its purposes if its possibilities were fully developed by plaintiffs who are not restrained by any fear of running a-muck; but the somewhat prevalent notion that there has been culpable inefficiency on the part of the Attorney-General is entirely unfounded, at least as to the earlier half of its history. The lower Federal Courts were at first strongly opposed to it; the judicial decisions establishing its partial constitutionality and its main principles of construction were not and could not have been obtained for many years after its passage;² and Congress made no appropriation for its enforcement until February, 1903. The preliminary investigations necessary to its general enforcement against industrial combinations are expensive as well as difficult; and the fact that there have been so few private actions for damages under the act shows

¹ Compare *United States v. Addyston Pipe Co.*, 85 Federal Reporter, 271; affirmed 175 U. S. Reports, 211; and *Montague & Co., v. Lowry*, 193 *id.*, 38, with *Hopkins v. United States*, 171 *id.*, 578; *Anderson v. United States*, 171, *id.*, 604; and *Whitwell v. Continental Tobacco Co.*, 125 Federal Reporter, 454.

² The decisive case (*United States v. Trans-Missouri Freight Assn.*, 166 U. S. Reports, 290) was argued in 1896, and decided by the casting vote of Justice Peckham, who had taken his seat during that year as successor to Justice Jackson, a strong opponent of the liberal construction of the law. (See *In re. Greene*, 52 Federal Reporter, 104.) Congress failed to provide means for its efficient enforcement, as twice requested by Attorney-General Harmon in that year. Evidence against an industrial combination was not obtainable until about that time, when a discharged stenographer revealed to a district attorney the secrets of the Addyston Pipe case.

the difficulty of proving its breach, since private individuals as well as the Federal Government may take part in its enforcement.

The construction of this statute has tended, so far as it has gone, to follow the literal meaning of its words. The first serious question—apart from that of its applicability to railroad companies, which is not relevant to the present discussion—was whether the judges were intended to have a dispensing power by which they could permit the existence of contracts or combinations in restraint of trade, provided the restraint appeared to them to be no more than reasonable. In the first test case¹ a majority of the judges stood to the language of the law,² and held that there was no such dispensing power. One of that majority has since changed his mind,³ and this has led many to believe that the decision will be reversed when the question is again presented to the court. As I read their language, however, the judges are committed, and by a majority stronger than before to the original ruling.⁴ It seems to me also that the ruling was wise. It indeed sounds well to say that restraints of trade should be permitted whenever they are reasonable. Everybody would agree to that, as a

¹ *Trans-Missouri case*, *supra*.

² There is a somewhat prevalent notion that the words "restraint of trade" meant "unreasonable restraint of trade" at common law, but an examination of all the authorities by the writer as counsel in the *Addyston case* showed that the notion is erroneous. "Restraint of trade" might be reasonable and lawful or unreasonable and unlawful.

³ *Northern Securities Company v. United States*, 193 U. S. Reports, at pp. 360-361.

⁴ Four justices in the case last cited restated the rule at p. 391. Of the remaining four, one had actually written the opinion in which it was first laid down, another had concurred in that opinion. All four concurred in reaffirming the previous decision. (Compare pp. 386, 405.)

theoretical proposition. The concrete case presented, however, is not whether a particular scheme is reasonable, but whether A or B thinks that it is. If A thinks one way and B another, A being a Commissioner of Corporations and B an over-worked judge, who has heard counsel on each side for an hour apiece, which shall rule? Or is it better to decide what kind of schemes are safe to allow as a general rule, and prohibit all others, leaving to nobody a jurisdiction to permit exceptions where he thinks they would be reasonable? The reasonableness, of a gigantic industrial combination, like the reasonableness of a railroad rate, is a very difficult and complicated question of fact. The arguments pro and con, as upon the analogous question whether a new legislative restriction upon the rights of property or of contract is sufficiently reasonable to be considered due process of law within the meaning of the Bill of Rights, are not peculiarly adapted to judicial consideration, but are rather economic and political in character. In difficult cases their solution requires an amount of expert knowledge which judges ordinarily cannot be expected to have before the argument,—for while they are wise, they are not omniscient,—and which the overburdened Federal calendars do not permit them to acquire between the argument and the decision. If the present provision concerning restraints of trade be amended in the future, I think that it will be wise to confine the amendment to a greater certainty of definition and otherwise leave it as it has been left by the court.

If anywhere, I think that such a dispensing power should be placed in some quasi-judicial body of experts, carefully selected and not discredited or disheartened by knowing that their rulings are to be reviewed by other

men of no greater natural ability, of less special qualifications, and who can pay less attention to the case in hand. The Interstate Commerce Commission is often cited as an example of the failure of such a body to do good work. It is supposed to have failed because it has been so often reversed by the courts. But the Interstate Commerce Law, as the courts have construed it, allows new evidence to be introduced before them after the Commission has made its decision, while the court decides on the record before it without the special knowledge otherwise derived, which the Commission is expected to use. Thus the court has more material before it of one kind, and less of another. If review is allowed at all, the record should remain the same. The argument also involves a *petitio principii* in assuming that the court's decision is the right one. When the facts as usual are complicated and difficult, the Supreme Court acts on the assumption that not only the lower court judges, but also the railroad officials themselves, are better qualified to decide than are the Commissioners appointed by Congress for that purpose. When the Commission decides against the railroads and the judges below decide in their favor, the Supreme Court will not sustain the Commission unless "convinced that the courts below erred." In other words when the lower judges agree with the railroads the decision of the Commission must be established beyond reasonable doubt in order to stand, no matter how careful the opinion of the Commission or defective the opinions of the judges, or how inconsiderable are the standing of the judges in the estimate of the bar.¹

The present prevailing notion that all acts of quasi-

¹ See for instance *Interstate Commerce Commission v. Alabama Midland Railway Co.*, 6 *Interstate Commerce Comm. Reports*, 1; 69 *Federal Reporter*, 227; 74 *id.*, 715; 168 *U. S. Reports*, 144.

judicial and even executive officers should be reviewed by the courts could be shown by many instances, I think, to be based on slight foundation.

The other serious question presented under the Sherman law—namely, whether its prohibition of combinations in restraint of trade “in the form of trusts or otherwise” covered a combination in corporate form, chartered by one of the States of the Union—has been affirmatively decided by a majority vote of the Supreme Court affirming a unanimous decision of the four judges below.²

When I began, I said that I would say nothing about the economic and political aspects of governmental interference. Now I want to repent, and say a word on those also. The people who advocate such interference are accused by the orthodox of overlooking recent economic changes which are supposed to cut off forever the hope of a return to former competitive conditions. Perhaps there would be force in the reply that we may be now in a transition period, which in its own turn will come to an end within our generation or the next. It is not impossible, perhaps not improbable, that the Age of Invention will come to an end, because the things that are capable of invention by the human mind in its present stage of evolution will have been mostly invented; and I refer not only to inventions in the Arts and Sciences, but also to discoveries as to organization and methods of corporate and other business. When the discoveries have been made it becomes comparatively easy to conduct a similar business on the new lines, and many people can be found who are capable of so doing. Many men can carry on a great executive

² Northern Securities case, 120 Federal Reporter, 720; 193 U. S. Reports, 197.

department once established, and make minor improvements in the work, where only one could originally have organized it and set it going. And so to concede that an executive department could not have developed a great industry in the first place does not necessarily involve a concession that it could not carry on that industry, upon lines developed by private enterprise, with no more than a negligible percentage of waste. By the middle of the Twentieth Century the world may have reached a condition comparatively static. If competitive conditions are then impossible, and state socialism seems the only alternative to a financial oligarchy, state socialism may appear to our children less impracticable and more tolerable than it does to us. From such an alternative in the future the advocates of governmental interference, without government ownership, are seeking an escape. Whether an escape by this road is possible or impossible cannot be learned from the one sure teacher—experience—until further legislation has been tried.

THE REGULATION OF RAILWAY RATES

MARTIN A. KNAPP

The purpose of this paper is merely to outline, without elaboration, the questions involved and the principles to be applied in the regulation of railway rates by public authority. If any argument is needed in support of the right and the duty of Government control, it is found in an obvious and fundamental fact. Until modern discovery utilized steam as a motive power, the ordinary public road was the sole means of communication by land, the only pathway of internal commerce. Before this new agency was brought into service, while the old highways were yet exclusively employed, the right to their common use was nowhere doubted or denied. In recent times certainly—and this is the point of importance—the established roads, the strips of land set apart as ways of passage, have everywhere been regarded as common property, and the right to their common use has been the recognized and equal possession of every person.

But the transfer of land commerce to highways of steel, with the substitution of steam and electricity in the place of animal power, has not impaired the nature of this right or diminished in the least its inestimable value. On the contrary, there is no pursuit or employment which is not now more dependent than ever before upon the means provided for public transportation. The railroad has become the principal highway. For long distance movement, it has wholly supplanted the public road, yet it performs on a much greater scale the same governmental function and meets the same increasing and indispensable need. Hence, the railway

of to-day, this wonderful vehicle of modern commerce, has become the chief factor of industrial life, the *sine qua non* of its power and progress, the primary condition on which individual opportunity and welfare continually depend. The right to just and equal charges for railway service springs therefore from the nature and necessities of social order. The railroads are an agency of the state for discharging a public duty of the highest utility. The right to use their facilities, like the right to the common highway, is an inherent and inalienable right the very essence of which is equality.

To secure the full enjoyment of this right, to enforce reasonableness and impartiality in the conduct and charges of railway carriers, is the distinct and beneficent aim of all regulating measures. The ideal condition obtains when the facilities of transfer are furnished on fair and actually equal terms, so that no advantage to one person over another, or to one community or commodity over another, is gained or expected in the use or cost of the agencies of transportation.

Now, whatever plan is adopted for accomplishing this purpose, it is evidently needful, as a practical measure, to provide at the outset a legal standard of compensation binding alike on those who furnish and those who employ the instrumentalities of public carriage. In other words, there must be a fixed and common rate, made known by suitable publication, which constitutes while it remains in force the measure of lawful charges. In the nature of the case, as it seems to me, this is necessarily the first step in the regulation of rates and charges.

Starting then with the standard legally established, whether by the carriers themselves as is now the case, or by the exercise of public authority in the first instance, two difficulties at once arise. These difficulties

are quite distinct in nature and differ widely as to the appropriate means by which they may be overcome. One relates to the measures for securing conformity to the standard rate, the other to the methods by which the standard itself may be changed or its reasonableness tested. These are practically unlike purposes. To accomplish them both requires efficient but dissimilar action. It is one thing to prevent the wrong-doing effected by granting to favored persons some discount from established charges, no matter in what way the preference may be secured; it is quite another thing to correct the wrong-doing which results from excessive or relatively unfair rates, though properly published and strictly enforced. This important distinction—between offenses like secret rebates and kindred practices on the one hand, and injustice resulting from the operation of the published rate itself on the other—is frequently overlooked. For this reason doubtless there is much misconception both as to the provisions of existing laws and as to the power of Congress to legislate upon the subject.

The nature of the distinction here pointed out and the importance of its recognition are made apparent when once the practical aspects of the matter are clearly perceived. It must be evident upon reflection that the only effective mode of dealing with those discriminations between individuals which are effected by rate cutting, rebates, underbilling and the like, is to place them in the category of criminal misdemeanors. No other direct and suitable remedy can be provided by legislative enactment. Any redress for injuries of this sort through civil actions for damages, which is the only alternative, is manifestly of insignificant value. It neither affords compensation to those who have suffered

nor does it operate with any force to prevent the recurrence of such misconduct. For offenses of this class are not the mere disregard of contract obligations; they are infringements of the common right and violations of unquestioned public duty. But when transgressions of this kind are made amenable to the criminal law, when the statute has impressed them with this penal character, they must be dealt with in the same manner and by the same agencies as other punishable offenses. As respects their prevention or the methods by which those who commit them may be prosecuted, they differ in no material respect from other misdemeanors. The ordinary machinery of the criminal law must be employed against those who transgress in this manner, and there is no other way by which penal provisions can be made effective.

It is scarcely necessary to observe that an administrative body, like the present Commission, is wholly without authority to prevent this species of discrimination. True, such a tribunal may be charged with the general duty of executing and enforcing the law; but it cannot be endowed with the power to punish delinquents or to otherwise administer the criminal remedies provided, except as it may aid prosecuting officers in procuring evidence against suspected parties. Plainly, if immunity is secured from these vicious practices it must be sought in the means devised for the enforcement of other criminal laws, and by the adoption of a legislative policy which shall remove or minimize the inducement to criminal wrong-doing.

It is worthy of remark in this connection that these are preventable evils. They are the natural outgrowth of conditions and theories which have largely obtained in railway operations, but they are rapidly disappearing

and will soon, I am sure, become as rare and as relatively unimportant as highway robbery and other like offenses. Their existence, to the extent they may continue, will not be a serious element of the railroad problem, as their suppression is only an incidental feature of the task of regulation.

If these views are correct, it becomes apparent that the principal and permanent office of regulation concerns itself not with secret or prohibited departures from the public standard, however established, but with the reasonableness and justice of the standard itself and the means of bringing about its alteration whenever found excessive or inequitable. When the effort at government control was first undertaken, there were as now tariffs in general use which furnished, nominally at least, the basis for computing the carrier's charges. These rates are fixed by the railroads themselves and represent their notions of proper or obtainable remuneration. The great body of producers and consumers, whose interests are so vitally affected by the cost of transportation, and who are so completely dependent upon this public service, have no voice in determining these charges and little power to prevent exactions or inequality except as they may command the intervention of public authority. If the tariffs in current use are filed and published as the law now requires, and as any useful and workable law must necessarily require, they furnish a standard of charges *prima facie* lawful and binding both on the railroads and the public. So long as they are actually observed nobody presumably is injured and nobody at fault. But if those upon whom these rates are enforced complain that a given rate is too high or is relatively unjust, and that charge is denied by the carrier concerned, how is the controversy

to be decided? Are railway managers themselves to be the sole judges of the reasonableness of their own rates?

Are they to be the final arbiters of the just relation of rates between different commodities and different communities? To investigate these tariffs, made as they are for the most part by the railroads themselves and in their own interest, to compel their correction when found to be oppressive or unfair, to determine in such cases what are just and reasonable rates for public carriage, is a governmental function of the highest utility. This is the central idea of regulation and the permanent field of its usefulness. Some authority there should be, superior to and independent of the carrying corporations, to examine their schedules, prevent unjust exactions, and equalize so far as may be the burdens of transportation. More and more, as population increases and industries multiply, will these burdens demand unbiased scrutiny and equitable readjustment. To give each community the rightful advantages of location, to keep different commodities on an equal footing, so that each shall circulate freely and in natural volume, to make the avenues of distribution and exchange equally available to all producers, so that none shall be over-weighted by discriminating rates or oppressive charges, to settle such controversies as may arise between the carriers and the public with due regard to the interests of both ; all this, as it seems to me, is comprehended in the needs and aims of public regulation.

That legislation to this end is a valid and appropriate exercise of the constitutional power possessed by Congress has repeatedly been declared by the highest judicial authority.

In the notable case of *Ames v. Union Pacific Railway*

Company, (64 Fed. Rep., 178) Mr. Justice Brewer uses the following language :

"Within the term 'regulation' are embraced two ideas : One is the mere control of the operation of the roads, prescribing the rules for the management thereof—matters which affect the convenience of the public in their use. Regulation, in this sense, may be considered as purely public in its character, and in no manner trespassing upon the rights of the owners of railroads. But within the scope of the word 'regulation' as commonly used, is embraced the idea of fixing the compensation which the owners of railroad property shall receive for the use thereof."

Under this decision and others of equal significance, it may be regarded as definitely settled that, within limitations which preserve to the owners of railroad property the equal protection of the laws and prevent the taking of such property without due process of law, the power of Congress—either by direct action or through the medium of a commission—to prescribe from time to time the scale of charges for the carriage of interstate commerce is in every respect plenary and exclusive. The wise exercise of that power within those limitations, for the purpose of enforcing transportation rates which are reasonable and relatively just, is at once the most important and the most needful in the whole field of national legislation.

Obviously, the investigation of published rates which are the subject of complaint and the alteration of the established standard, when that standard is found to be actually or relatively unjust, are matters unsuited to the application of penal statutes. The carrier which fixes in good faith and impartially applies a schedule of rates cannot be regarded as a criminal offender merely be-

cause that schedule is believed or afterwards found to be excessive in amount or prejudicial to one locality as compared with another. These are questions concerning which there may be and often is an honest difference of opinion, and until a new standard is in some way authoritatively fixed the collection of charges according to the old standard affords no ground upon which to base a criminal charge. The demands of justice in such cases would not be satisfied if criminal liability could be predicated upon the observance of a standard rate, although claimed to be unjust, before a new standard was in some way prescribed. In other words, there must be a proceeding in the nature of a judicial inquiry, or the alteration of the open tariff by voluntary action, or the exercise of public authority.

Nor can the correction of excessive or preferential rates be secured through the ordinary courts. Not only are their methods and rules—however necessary to safeguard the adjudication of private controversies—unsuited to the determination of public rights as affected by transportation charges, but the limitations upon their powers preclude them from granting the measure of relief which the nature of the case requires, and that is the substitution for future observance of a new standard of charges. If the rates in force are too high or relatively unjust, the only remedy of practical value is a reduced or readjusted schedule to be thereafter applied. But this involves the exercise of legislative authority which courts do not possess and with which, under our form of government, they apparently cannot be endowed. Any substantial and adequate relief from inequitable rates must therefore be afforded through the medium of an administrative tribunal.

Such a tribunal, exercising by delegation some measure of the power vested in Congress, should have ample authority to determine in the first instance, and with at least the conclusiveness of a court of first instance, whether particular rates or practices, of which complaint is made and which are investigated upon notice and opportunity to be heard, are or are not in violation of the carrier's obligation to charge only reasonable and non-preferential rates. When such a question has been thus tried before that tribunal, its decision should stand as a rule of conduct prescribed by public authority and be observed as the just and legal standard of charges, unless a review thereof by the courts shall disclose some error which warrants judicial interference. It is not proposed that this tribunal shall establish schedules by arbitrary methods or be clothed with power to fix rates by *ex parte* orders; but it is proposed, when a given rate is complained of on the ground that it is excessive or relatively unjust, and that complaint has been examined upon due notice to the carrier and full opportunity to be heard, that the judgment of the tribunal in such case shall be binding upon all parties to the contention, unless judicial review finds cause for preventing its enforcement. The exercise of such authority when occasion requires is the only appropriate and adequate safeguard against unreasonable or discriminating charges. Not in the award of damages for past injuries but in the substitution of a new and juster standard of compensation will be found the sufficient and comprehensive remedy for the wrong-doing occasioned by unreasonable rates; and nothing short of this answers the purposes or meets the needs of public regulation. Congress has not undertaken, probably will not undertake, to prescribe by specific enactment what rates shall be

charged by any road or on any article of traffic. As a practical matter, its power in this regard must be delegated to an official body which shall determine and prescribe the rates and rate relations to be put in place of those found to be unreasonably high or to operate with discriminating effect. To guard against the abuse of such authority the action of the regulating body should be subject to judicial control under conditions suited to the nature of the controversy and designed to secure its just and speedy determination. In my judgment these are the principles which should govern the development of any suitable and sufficient scheme of railway regulation. If these principles are accepted their application becomes a matter of detail which the limits of this paper do not justify me in attempting to discuss.

One inference from these views, however, may be properly suggested. The evils which have attended the growth and operation of our railway systems, and which have given rise to so much public indignation, have their origin and inducement for the most part in the competition of carriers which our legislative policy seeks to enforce. That this is a mistaken and mischievous policy, I am fully persuaded. So long as the competition between carriers remains unrestrained, just so long will it find expression, to an extent always serious and often alarming, in secret departures from the established standard and relative injustice in the standard itself. The power to compete is the power to discriminate, and it is simply out of the question to have at once the presence of competition and the absence of discrimination. To my mind the legislation which decrees that all rates shall be just and reasonable, and declares unlawful every discrimination between individuals or localities, is plainly inconsistent with competi-

tive charges. The facts of experience and familiar knowledge demonstrate the error and futility of regulating laws which at once endeavor to make rate competition compulsory and at the same time condemn as criminal misdemeanors the acts and inducements by which in other spheres of activity competition is mainly effected. For this reason I advocate the legal sanction of associated action by rival carriers in the performance of their public functions. This is the one sensible and practicable plan, adapted to existing conditions and suited to the requirements of a public service. Such a policy would promote and invite the conduct of railway transportation in the manner most beneficial to the people and the railroads alike.

The true theory of public regulation, therefore, the theory which is best calculated to produce useful results, is to allow the railways to unite with each other in the discharge of their public duties, thereby making it feasible and for their interest to conform in all cases to their published schedules, and to invest the regulating body with authority, after investigation of complaints upon due notice and hearing, to condemn the rates found to be actually or relatively unreasonable and to prescribe, subject to judicial review, a substituted standard to be thereafter observed. If these views are correct and grounded in sound public policy, their speedy adoption will enlarge the benefits and promote the success of railway regulation.

DISCUSSION

ON PAPERS BY WHITNEY AND KNAPP ON CORPORATIONS AND RAILWAYS

EDWARD P. RIPLEY: For nearly forty years I have had to do with the making of freight rates and the general relation of the public and the railroad. In this, as in all other details of trade and of transportation, there has been a constant process of evolution which has been but little affected by attempts at legislative restriction or regulation.

Prior to 1880 the railroad was generally regarded as a private institution, operated by its owners purely for private gain with but very ill defined duties toward the public. Rates had been originally fixed just low enough to take the business as against wagon transportation, but had declined rapidly from that point by reason of competition between carriers and because it had been discovered that, within certain limits, business could be stimulated and increased by reductions in rate. But there was natural hesitation about a wholesale reduction of tariffs, and it was found safer and easier to allow the nominal tariff to stand, and to make special rates as needed by refunding a portion of the charges upon certain shipments, and this was the origin of the so-called "rebate system".

Much as this system has been denounced and many as were the abuses to which it lent itself, there were some things in its favor. A manufacturing establishment, for instance, located upon the line of one of our Western roads properly demanded a lower scale of rates than those published in the tariff,—yet such a scale

could not be afforded at the price of a general reduction ; and there is no good commercial reason why such an institution employing say 500 to 1000 men, and creating a center of population should pay upon its thousands of tons of coal, for instance, the same rate as the village blacksmith pays for his twenty or thirty tons.

The "wholesale and retail" idea was generally claimed by shippers and admitted by the railroads—*i.e.*, the equity and propriety of a lower rate to the larger shipper. It was not long, however, before railroad men began to see the fallacy of this notion, and to realize that so long as the large shipper obtained the lower rate there would be no small shipper ; and so, gradually, the general rule obtained that all those competing for the same business in the same territory were given substantially the same net rate. It would be too much to say that there were no exceptions to this, or that there were not some flagrant cases of discrimination,—but they were the exception and not the rule, and while a large portion of the rates charged were not the rates of the printed schedule there was but little real injustice done.

But the few cases of wholly unjustifiable discrimination which came to light, and the agitation of a few people, some with real and some with fancied grievances, resulted in the passage of the Interstate Commerce Law, which became effective in 1887. The crudities and absurdities of this law have been often pointed out, and I shall here allude to them but briefly.

Its great defect is in that it contradicts itself in attempting to enforce absolutely stable rates, alike to all, and at the same time fostering unrestrained and unregulated competition,—two propositions entirely at variance with each other and impossible to reconcile—and

to this fatal defect may be laid the entire failure of the law to accomplish the object sought. For, the large shipper still clung to the idea that as he could buy everything else on a lower basis than his small competitor so also should he buy transportation on a lower basis, and he had no respect for any law that sought to hinder him; and while railroad officers had long discarded this idea as a principle and had fully realized that the wholesale and retail idea as applied to transportation was applicable only to the distance hauled and not to the quantity, yet the tonnage of the big shipper was a powerful argument and, in due course of time, prevailed. Moreover, the tendency of the times was, and still is, toward concentration of the leading lines of business into few hands, thus putting the control of an enormous tonnage into the hands of a few men who were quite willing to violate the law, primarily, of course, for gain, but also because of utter disbelief in its equity or propriety.

(Let me here interrupt myself to say something which may be of interest because so foreign to the general idea:)

The Standard Oil Company, upon the passage of the Interstate Commerce Law, announced its intention to neither solicit nor accept any form of rebate or concession, and from that day to this has paid the full published rates, dividing its business between the carriers, in marked contrast to the other so-called trusts. I hold no brief for the Standard Oil Company; it is said to have had its origin in illegitimate advantages in rates;—but it is only fair to make this statement—a statement that will be confirmed by every railroad in the country.

Since the passage of the Interstate Commerce Law, and the almost co-incident consolidation and concentration of tonnage, the rate discriminations have decreased largely in number; that is to say, the beneficiaries are fewer, but the real discrimination has been worse. Under the old system, rebates of ten per cent. might be paid to hundreds of shippers and they were practically all on the same basis; under the new state of things rebates of thirty, forty, or even fifty per cent. were allowed to the "trust", with the result that there were soon no other shippers.

Let me hasten to say that I am not making a confession. I do not mean that the law was technically violated in all these cases; all sorts of devices served as evasions of the printed requirements of the law,—given a desire on the part of a large shipper to get concessions, and a desire on the part of the railroad to grant them—and it can be done in a thousand ways which it would be difficult if not impossible to detect. Of course the railroads do not want to disobey the law; neither do they want to pay back to the shipper any part of their earnings. If they do it, it is because they fear loss of tonnage in case of refusal. I am not excusing this, but there are roads which are, under existing conditions, forced to disobey the law or be forced to the wall,—and men are but mortal.

The obvious solution of the difficulty is to cease trying to make men honest by statute and to remove the restrictions which now prevent the railroads from presenting a solid and united front. We are now expressly forbidden to combine, while all the world may combine against us, and so our strength is measured by that of the weakest among us.

The Interstate Commerce Commission has for years been urging that it had not the necessary power to enforce the provisions of the law; that its decisions were either ignored, nullified or appealed from, resulting in little or no relief to complaining parties; that being by law empowered to hear and pass upon complaints of unreasonable rates, it should be empowered not only to say what is unreasonable, but also to say what is reasonable and to have its decisions respected. On the other hand it is contended that the law never intended to confer the rate making power on the Commission and that its findings can only be properly enforced by proceedings in the regular courts.

And now comes the president of the United States as more or less an ally of the Commission views.

This recommendation is the result of a constant pressure for more power on the part of the Commission itself, and of agitation on the part of a few individuals who have been able to create an apparent public sentiment. I say "apparent" because it is easy to manufacture what seems to be on the outside a popular demand, by persistent effort and *ex parte* statements.

As usual the railroads have made little effort to defend themselves; but the ceaseless clamor of the Commission and the real or unreal clamors of the public have reached both the legislative and executive branches of our Government, and it is now seriously proposed that something be done.

In the effort to divest myself of all class prejudice and to look impartially at the whole question I am constrained to admit the claim that there should be a body whose decisions should be final upon rate questions, and that it is desirable that this body should be specially constituted to deal with such questions. I do not think

that this power should be given the present Commission because it is a prosecuting rather than a judicial body. But if the nation is to assume the power to adjust railway rates, I most urgently insist that it at the same time remove the restrictions which now prevent us from maintaining the rates as fixed. The proposition that the government shall even remotely or partially assume control of railway rates is a long step toward paternalism and in direct contravention of the theory that the country least governed is best governed. Yet I can conceive of conditions under which the settlement of certain questions by an agency distinct from and superior to the railroads might have its compensations and be even beneficial. It is a well-known fact that the great majority of cases heard by the Commission are not complaints that rates are too high *per se*, but that they are inequitable as compared with other rates. Each community is jealous of its trade and constantly striving for advantage over its rival, and the adjustment of rates is, with the best of intentions on both sides, a difficult and delicate matter, and there have been cases, and may be again, where the decision of a disinterested and impartial tribunal would be a positive relief. But if the government is to assume regulating functions; if it is actively to supervise rates and transportation; if, in short, the railroad is taken out of the list of purely commercial enterprises and invested, in whole or in part, with a public character, then it seems to me that it must be so clear as to need no argument that it must be treated more or less as a ward of the government in other ways, and must be protected as well as regulated.

The Sherman Anti-Trust Law and the prohibition of pooling in the Interstate Commerce Law have but one object—one excuse for being on the statute books—

namely to prevent extortion, and if the Government assumes to prevent extortion by direct control of rates, it certainly cannot concern the public what agreements we make with each other or what we do with our earnings. Our crying need is for a means by which we may *maintain* the rates. In some cases a simple agreement suffices; in other cases a pool is necessary to an agreement. Both are now prohibited.

I do not wish to be understood as in the least in favor of making the decision of the Interstate Commerce Commission final. I do not think the prosecutor should also be the judge; nor do I think the findings of the Commission should be observed pending appeal, for the reason that if the appeal is sustained the railroad has no redress for its losses; but there might be a small and strictly judicial tribunal of high class, and divorced from politics, to pass, upon appeal from the findings of the Commission. The main point, however, is that the Government, if it will regulate must protect; if it limits rates it must in justice remove all impediments to the collection of the rates as fixed. Herein only lies consistency and logic.

It will be observed that the conclusions I have reached differ from those of Mr. Knapp in but one essential particular, namely—that he desires the findings of the Commission to be put into immediate effect,—while it seems to me that there is no valid reason for this departure from the usual course in cases of appeal. For, if the rate fixed by the Commission be not sustained on appeal there, is no redress for the railroad; it cannot collect from the shippers the sums which it has undercharged them; while it is quite feasible for the shipper to collect overcharges in case the rate fixed by the Commission be sustained on review.

The Chairman of the Interstate Commerce Commission is a man of broad views and of judicial temperament. I do not think that any of the railroad representatives would raise great objection to his position, except in the one particular I have mentioned.

JOHN H. GRAY: If I can gather up different parts of the arguments and show the relation of one to the other in two or three minutes, I shall accomplish my purpose and count myself happy. I take it that, as Mr. Ripley has just indicated, railroads can no longer be regarded as private institutions. On the contrary the public has a great, even a paramount interest in such companies, they being fundamental necessities of modern civilization. That being the case it is clear that the public interest must be maintained, and will be maintained. This can be done in one of two ways, either by an effective public control, with private ownership, or by public ownership. If, in the long run, the control under private ownership cannot be made effective, then we not only will try the other expedient but, in my opinion, we ought to do so. The public interest once granted, it follows inevitably that it is unsafe, here as in all other human affairs, and especially in a nation commercialized as this one is, to leave a matter of conflicting interests to be decided by one of the parties to the controversy. The government must have a hand in making or testing railroad rates. Chairman Knapp has done a service in the distinction he has made in regard to the two kinds of evils, or supposed evils, to which the public is exposed. One he designates as criminal acts, and the other as administrative acts, subject to administrative adjustment. In regard to the rebates and under-billing, and all the other devices to accomplish the same pur-

pose, there is no difference of opinion among the more progressive railroad men, or among scientific students. There is one great evil, that can not be remedied without doing the thing Mr. Ripley and Mr. Knapp have so strongly emphasized, namely, legalizing pooling. We all know that it is impossible to stop rebates and similar forms of discrimination without authorizing pooling. In the last few years, we have made some progress in this regard. Until recently there were just reasons for not taking this step, for we did not know how strong the government might be in its attempt to control legalized pools, and consequently we were rather afraid to authorize pooling. We have, however, made such progress in the last few years that it is not going to be a difficult thing to induce the people to accept pooling as desirable and even necessary. This is so absolutely essential that it is not worth while to dwell on it. We must authorize pooling in order to check greater evils. Let me refer briefly to what Mr. Knapp has characterized by the harsh word "criminality". If we have learned anything in dealing with criminality, we have learned that progress is not made by punishing people for crimes, but rather by changing the circumstances so as to remove the temptation to commit the crimes. To legalize pooling will remove the temptation to lawlessness.

Coming now to the other part, namely, the adjustment of the rates in the public interest. In this regard also we are right in saying that great progress has been made. Within the last few years, and even within the last few months, we have made what seems to me a great step forward by a much less frequent use of the phrases "make rates" and "fix rates" in an ambiguous sense. A large part of the discussion—and it has come

from various classes of society, and has not been entirely unknown even to the railroad world itself—has referred to the fixing of rates in speaking of the Interstate Commerce Commission, as if that Commission were supposed to sit down, in its own chambers, and out of its own brain evolve a system of railroad rates for all the traffic in the country. Of course that sort of thing is past. When we talk about giving the Commission power to fix or make rates, we mean—at least all of us here mean—fixing rates, in specific instances, after a public hearing and after thorough investigation. I come now to the point that Mr. Ripley emphasized last, namely, the subject of judicial review of the work of the Commission. Under the present Constitution there must be opportunity given somewhere for a judicial determination of the reasonableness of rates fixed by the roads, by the legislative power directly, or by the Commission. The whole question is whether or not a rate fixed by the Commission, under the conditions named, should be enforceable pending judicial review, under proper provision safe-guarding the road in case it gets the rate set aside by the court. Ought a rate so fixed by the Commission to be enforceable immediately or ought it to go into effect only after being confirmed by the court? I believe that we are not going to make very much progress unless we have a distinctly administrative body, one whose chief work is to get things done right, rather than to convict some one of having done wrong. I was very much interested in Mr. Ripley's language referring to the prosecuting character of the Commission. There is some justification for that but such justification tends to disappear with the lapse of time. The Commission ought not to be a prosecuting Commission; it ought to be primarily an administrative Commission and I be-

lieve things are moving towards that end. I find myself unable to agree with Mr. Ripley in regard to the time at which the findings of the Interstate Commerce Commission should go into effect. It seems to me the proposition he has made, in the present state of the popular and the Congressional mind, would lead, in some measure, (not to the same extent but to a detrimental extent) to exactly the evils we now suffer from, when we try to settle these things by the ordinary courts. This method has broken down in practice because the procedure is that of private law and consequently too complicated. The ordinary courts are too heavily burdened with other business, and the judges do not have sufficient technical knowledge of rates. There is no reason, in the nature of things, why a well selected Interstate Commerce Commission, adequately paid, and with reasonable certainty of tenure, should not become the most expert body for rate-making, or adjusting in the country.

W. Z. RIPLEY: It seems to me the point that has been stated is an entirely fair one, that it is impossible to expect competition to continue as the underlying principle of railroad rate-making; and at the same time, to expect that the policy of the Interstate Commerce Act of 1887 should be carried out as it is propounded in that law. A large number of railroad abuses, those consisting of inequality in charges, could be readily corrected by the railroads themselves if pooling were not only permitted but were made a legally enforceable process. It was a matter of long and heated discussion before the United States Industrial Commission as to whether a recommendation in favor of pooling in this way should be incorporated in its final report, and a

good many of us who were working for that Commission regretted exceedingly that it did not recognize the possibility of remedial action by the railroads themselves for correcting many of these abuses,—if concerted action could not only be permitted but made a legally enforceable matter. On the other hand, if you are going to grant such power for concerted policy on rates, it seems also surely necessary that the public's interest in such a concerted policy must be safe-guarded by some means of administrative revision. Whether that revision shall be made by an administrative commission, as at present proposed, or whether it shall be by a court, is a matter of detail. Experience with courts in foreign countries, so far as I know, shows precisely the same evils which we have here today; viz, those of intolerable delay and of great expense to the persons who seek redress. At all events if we could possibly concede the right of concerted action, and add to it a supervision with power of revision by the courts; ultimately, if you please, but permitting the first decision of the administrative board to hold until the matter is finally settled in the courts; it seems to me that only in that way may the interest of the two parties in this great controversy be settled for good.

H. T. NEWCOMB: The questions I wish to suggest are, first: whether the evils which undoubtedly exist, in some extent are great enough to justify the proposed radical departure from approved legislative practice; and, second: whether the remedy suggested is adapted to the evils that exist. It may serve to make the discussion clearer if I say at the outset, that there is no proposition before the Congress and none really before the people which would tend to prevent rebates, al-

though the paragraph relating to rate regulation in the President's message was, erroneously, entitled "rebates" The suggestion made by Mr. Ripley, that the pooling privilege be restored is directed toward the eradication of rebates, but I don't know that there is any substantial sentiment in Congress in favor of the enactment of a pooling law. Mr. Ripley very well said that the appearance of public sentiment in favor of a drastic law has been manufactured. There has been a very active propaganda at work in the effort to make the people believe that terrible evils exist in connection with railway rates. I am not speaking with regard to rebates. I will go as far as any one in endorsing any legislation fairly aimed at the removal of rate-cutting and under-billing and all secret devices by which one person is favored over another person. But in the adjustment of the schedules, we have had the Interstate Commerce Commission at work for eighteen years, and it has decided but 353 cases and only 194 of these in such a way that if everything had been done which it recommended should be done, some gain would have accrued to the complainant; that is less than eleven cases a year for eighteen years. Now in answer to these facts, the suggestion is made that if the Commission had more power it would have more cases to decide; but for ten years, as the Commission declares in the annual report which it submitted to Congress two weeks ago, it did claim to exercise the power now sought and held out to the people of the country that it had precisely the power which it is asking for now, and in that ten years it did not, on the average, decide as many cases as it decided last year and did not have as many complaints by about fifty per cent. as last year. The average of complaints during the first ten years was about forty. The number of

complaints for last year was sixty-three. Now, as I said, 194 cases have been decided in favor of the complainants. Some of these cases have gone to the courts. The Commission made a report to Congress not many years ago in which it gave the result of the orders in which it had demanded changes in rates. That report covered 107 cases, and in 58 of those cases, the railways had fully and completely complied with its order. In eleven more there had been partial compliance and, in another, it said "some changes" had been made. It is to be observed in regard to these twelve cases that the compliance was at least sufficient so that neither the complainants nor the Commission went into the courts for the complete enforcement of its orders. Therefore, we may say that in 70 out of 107 cases, compliance with the orders of the Commission was substantially complete and the relief approved by the Commission was obtained through the Commission, although it did not possess the power to name a new rate or to issue a final decree enforceable pending an appeal. Forty-three cases during the history of the Commission have gone to the courts; in just two cases has the order of the Commission been finally sustained. There are few cases pending, six or seven.

Is this remedy adaptable to the evils that are claimed to exist, if they do exist? Inquire in the states where rate-making Commissions are maintained. Has any fair inquiry been made to compare the conditions in those states as to state rates and state shippers with the conditions in other states where they don't have rate-making commissions? Ask some of the shippers in the state of Illinois whether the rates in this state are lower or higher than the rates in Michigan and Ohio and Indiana. Ask the citizens of Georgia where they have

had a rate-making commission for many years, whether their state rates are lower or higher than in other states. Only the other day the *Atlanta Journal* declared editorially that it is impossible to get reasonable rates within the state of Georgia, although interstate rates are reasonable and are not more than half as high, and it gave as its reason that if the shipper goes to the railway asking for a low rate in the state of Georgia, he is told the railroad has nothing to do with that, it is in the hands of the railroad commission; but if he asks for a lower interstate rate he gets it, because the railway has the power to give it.

F. B. THURBER : What I have to say is largely from the standpoint of a shipper. I have been a shipper by railroad for many years and now represent other shippers. It seems to me that this whole discussion as presented to us here today is coming down pretty close to a point, and that is whether we should have an amendment of the Interstate Commerce Law which will give the Commission the right to prescribe rates and those rates to go into operation before they are reviewed by the courts; and also as to whether we shall authorize agreements between carriers under the name of pooling or otherwise. I represent a class of shippers, and I believe today a great majority, who think the railroads are not as unreasonable as the class of shippers who are now agitating for amendment seem to think they are. Everybody, I think, is against unjust discrimination and the other question is how this may be remedied. My own belief and the belief of many shippers who think as I do, is that in amending the Interstate Commerce Law, the findings of the Interstate Commission as to what rate is reasonable should not go into effect until it

has been reviewed by the courts. It is too much like hanging a man first and trying him afterwards. We believe, however, that there is a just complaint against the delay of the courts in arriving at decisions and that that may be best met by the constitution of a special court charged with the consideration of these questions, which could take up the findings of the Interstate Commerce Commission, and specially adjudicate them ; such a court should have a permanency which the Interstate Commerce Commission has not in its membership, and consequently, be less exposed to political and other influences than the members of the Interstate Commerce Commission are. We were fortunate when establishing the Interstate Commerce Commission to have a jurist like Judge Cooley as its first chairman. We are fortunate in having as its present chairman a man like Judge Knapp, and I believe, if all his associates were as judicial and able as Judge Knapp that we would not have ninety-three per cent. of the decisions of that Commission reversed, as they have been, that is, ninety-three per cent. of those decisions which reached the Supreme Court of the United States, and hence we should, I think, address ourselves to these two points, first as to having some means established by which the decisions of the Interstate Commerce Commission can be speedily reviewed, and second, to give railroads the same right of contract that every other individual and every other corporation in this country has—a right which they now do not have owing to the prohibition of pooling agreements in the Interstate Commerce Law, and also by the Sherman anti-trust act which prohibits all agreements between carriers.

WILLIAM F. FOLWELL: I feel disposed to use a minute or two in what I am sure many of you will

think an unnecessarily radical and revolutionary proposition ; but when I hear discussions upon rates, of this kind, interesting as they are and valuable as they are, I still think there is a deeper question in regard to rates which ought to be had in mind. We have been discussing rates from the standpoint of railway ownership. We have not discussed them from the standpoint of the general public. All the speakers, I think, have agreed, and all others will agree that the railway has become a public carrier ; it is a servant of the public through and through. Transportation has become absolutely necessary to every individual. I cannot live unless the railroad brings to my door the means of subsistence. I submit this proposition, and I will take the risk of being called socialistic, that there should be no more chance to make money out of transportation than there is in carrying the mails. What do you think of that ? There should be no opportunity of exploiting the public by means of this absolutely necessary function, and I am going so far in my teaching as to say this, that the time is to come—and we ought to work for that time to come—when we will have an arrangement of this sort : that railroads shall be constructed and operated in such a manner as to pay the best wages, and all the salaries necessary to secure the very best talent, to pay a fair interest on all the capital or all the wealth that is actually in the road, and no more ; to maintain a fund for maintaining the road, and for such extensions as may be necessary and for paying a fair, ordinary tax ; and then when all these expenses have been paid—I do not know that I have them all in—any excess of income should go into the public treasury. That would make the business of rate-making not only comparatively simple, but would make it a somewhat different proposition. The

question of rate-making under those circumstances would be comparatively unimportant, so long as it was understood that any excess of income should go into the public treasury.

EDWARD P. RIPLEY : In the first place I would like to discuss for a moment the suggestion made by Professor Gray as to the desirability of making the decisions of the Interstate Commerce Commission effective at once. The objection to that, in my mind, is first : it reverses all legal practice and is—as was stated a little while ago—like hanging a man first and trying him afterwards and, second ; in view of the fact that a great majority of the cases which have been appealed from the Interstate Commerce Commission have been decided adversely to the Commission and, that in case of a decision adverse to the Commission there is no way by which the wronged party—that is, the railroad—can get redress. If the Commission says that one dollar is too high and the rate must be eighty cents and the railroad must go on charging eighty cents until the decision of the Commission is reversed, what redress has the railroad? On the other hand, if the practice is reversed from that and the railroad is permitted to go on charging the old rate until the decision is sustained, every shipper has recourse against the railroad. They might make the railroad give a bond, if you please. It would be manifestly unfair that any party to the controversy should be injured to that extent pending the settlement of the controversy itself.

One other word, as to the point made by the last speaker. I don't represent or speak for all railroads in the United States, but I think their owners would be very glad to accept some such proposition as he sug-

gests, namely, that the Government guarantee a fair interest and fair return on their present value, and take the surplus. Furthermore, as to his allusion to the post office and the comparison made between the post office and the railroad, I will agree to organize a syndicate which shall take the transportation of the government mails off its hands, shall do the business in every respect as well as it is done now, and not charge eight, nine, or ten million deficit as is now charged.

EDWARD B. WHITNEY: I represented the Interstate Commerce Commission at the time of these cases which have been alluded to, when it was decided that they could not "make rates". What the Commission wanted to do was, when they found that a rate was unreasonable, to say "You shall reduce it to not above such and such a figure." The court did not allow them to do that, and therefore their decisions became practically a nullity. I saw a good many of their decisions at that time. Some of them were better than others: but it seemed to me that their work in those times was distinctly superior to that which was done by the judges who reviewed them. As I said earlier here to-day, the cases were not heard by the Commission on the evidence on which they were heard by the court. The best known was the Alabama Midland case, where the railroads put in a little evidence before the Commission; the order was made, and then they went and put in a large volume of depositions before the court. It was on those depositions, on which the Commission never passed at all, that the railroads won. One of the points in that case was whether a town called Columbus, Georgia, should have a better rate than Troy, Alabama.

Columbus got a better rate because it had competition by the Chattahoochee River. The facts turned out to be that the Chattahoochee River is navigable—only six months during the year—to vessels not drawing over three and a half feet of water, although the navigation is much interfered with by over-hanging trees. I hope too great weight will not be put on the argument that the courts reverse the Commission. The Commission was differently constituted then. I have not had occasion to read their recent decisions. They may be as bad as the railroads say they are. But it seems to me that if you ever do have a commission to make rates or fix rates, it ought to be a commission whose decisions on questions of fact are final and should not be reviewed by any court at all. Have the court decide only whether the great principles of law have been observed, as by giving the parties due notice and a hearing.

HORACE WHITE: The crux of this question as between Mr. Ripley and Judge Knapp appears to be, how are the railroads going to get their money back in case an appeal is made and they win the appeal? He says the railroads can, if necessary, give a bond. Why can't the plaintiff give a bond also? I have been engaged in litigation where I took an appeal and I was required to give a bond whether I wanted to or not.

TENDENCIES IN RAILWAY TAXATION

HENRY C. ADAMS

In searching for the trend of railway taxation, it would be an error to assume the existence of a separate and independent system of corporate taxes. This assumption has been frequently made by writers upon American finance, but in so doing they fail to distinguish between the underlying principles of a system of taxation, on the one hand, and the machinery for administering that system on the other. So far as methods of assessment and collection are concerned, it is true that railway corporations are placed in a class by themselves, but it is not true, speaking generally, that the theory of public contributions applied to them differs from the theory which is applied to other classes of property. That system of taxation, known as the general property tax, is as strong to-day as it ever was in the history of our country; indeed it is stronger, if we are to judge from the changes that have taken place in the laws of the states during the past twelve years.

A glance at the laws of railway taxation in the several states and territories gives ample support to the claim that these laws fail to introduce any new principle into the established system of local taxation. Including the District of Columbia and excluding Alaska from the list, local government in the United States is represented by fifty states and territories. Of this number only two, Rhode Island and the District of Columbia, make no distinction in the matter of taxation between railway property and other property. That is to say, these political divisions fail to provide special

methods even for the assessment and collection of railway taxes.

There next comes a list of thirty-nine states which make the general property of the railways, including both personal and real, the basis of taxation, but which provide machinery for assessment of railway property different from that employed in the assessment of general property. The character of this administrative machinery is of no importance as bearing upon the question under consideration. Nor does the fact that some of these states make an assignment of railway assessments to the minor civil divisions through which the railway runs, while others distribute the money collected, and still others keep this money for state expenditures, bear upon the problem in hand. The important fact is that the system of local taxation in these thirty-nine states expect railway property to pay for the support of government an amount in proportion to the value of the property, the same as in the case of general property. These thirty-nine states, like the two already mentioned, making forty-one in all, are properly included within the jurisdiction of the general property tax.

There are six states, Delaware, Connecticut, Massachusetts, New York, Pennsylvania and Kentucky, which tax railway property according to its value, but which assess the tax to the value of stocks and bonds rather than to the value of real and personal property. In all cases, with the exception of Connecticut, this tax upon stocks and bonds is supplemented by other forms of taxation. It is, however, the *ad valorem* and not the specific tax that gives character to their taxing systems. It thus appears that forty-seven out of the fifty states and territories aim to tax railways in proportion to their value.

The remaining states, Maine, Maryland, and Minnesota, have adopted a system of specific taxes, making gross earnings the measure of the duty of railways to pay for the support of government. The statutes of two states, Vermont and North Dakota, give the railways the choice between paying upon an *ad valorem* or a specific basis, although in the case of North Dakota the court has ruled against the tax on gross earnings. The states of Ohio and Texas, also tax railways upon the basis of gross earnings, but make this a supplemental or additional contribution. Five states adopt the essentially pernicious method of supporting their railroad commissions by means of a special tax on earnings. Other minor differences might be mentioned, but they would not affect the conclusion that, with the exception of Maine, Maryland and Minnesota, railways are taxed according to the value of their property and that both common law provisions and constitutional rules relative to equity and justice in taxation requires that they pay a rate equal to the rate of other property upon their cash or par assessment.

It has sometimes been claimed that the unit rule in the valuation of railway property, a rule which has received the approval of the courts, amounts to the recognition of a new principle of taxation. With this opinion I can not agree, at least as far as the original application of that rule is concerned. The unit rule is nothing more than the application of the old principle that property must be valued according to the use to which it is put. It is but the recognition of the fact that the commercial value of railway property depends upon its continuity from county to county and from state to state. It is the logical result of the expansion of commercial properties beyond the limits of local taxing jurisdic-

tion. The unit rule of assessment is in perfect harmony with the assumption that value is commercially homogeneous, and implies no criticism upon the underlying theory of the general property tax. It, like the laws of the states passed in review, pertains to the application of the general property tax to interstate properties, and does not suggest, at least in any direct manner, that the value of a railway may differ both socially and industrially from the value of a factory, or that the value crystallized in the property of a railway, may itself be subject to analysis and classification according to its character or to the source from which it arises.

The courts have, however, taken one step which may prove to be a point of departure for the development of new principles in the taxation of railway corporations, a step with which the later applications of the unit rule, as for example the Ohio Express cases, are in perfect harmony. I refer to the judicial recognition of a franchise value which may be a value in excess of the valuation of the physical property. It is not necessary to go into the details of these cases, nor to discuss the propriety of the rule accepted by the courts for measuring this franchise value. The significant point is that the courts have taken cognizance of a value in excess of what may be termed the inventory value or the value of the physical properties. This being the case the question at once arises, what is the source, the social character and the industrial quality of this excess or surplus value? A further question, also, claims attention. Should an analysis of this value prove it to be in any way peculiar, do the principles of equity and justice, which are acknowledged to lie at the basis of taxation, require the taxation of this value in a peculiar manner. To answer these questions

requires an analysis of what, for convenience, may be termed the surplus value inherent in the property of a prosperous railway, and it is to this analysis that I now invite your attention.

Speaking generally, the value of the intangible, immaterial or non-physical element of an industry is the product of organization, a productive principle recognized by Adam Smith, and the importance of which has grown with each step in the development of industry. Such an observation, however, is of slight importance, for commercial organization is of many sorts and followed by various results. Our analysis will be more fruitful if we substitute for so glittering a generality, an enumeration of some of the more important elements to be found in surplus value as it inheres in railway properties. The following is such an enumeration.

1. This value covers, in the first place, the value of the franchise, that is to say, the value of the right to be and to act as a corporation. This assertion, however, of a franchise value as a distinct form of value is submitted as a concession to legal lore, rather than because it is believed to be a fact of marked significance. A franchise doubtless carried with it an independent value when the right to be and to act as a corporation was an exclusive privilege. At present, however, general incorporation laws have destroyed whatever value pertained to a franchise on account of its exclusive character. If there be surplus value, it must be found in the nature of the industry in question, or in the relation which that industry bears to the principle of competition, and not in the fact that a particular body of men are at liberty to exist as a corporation. The surplus value which we are now en-

deavoring to explain is something more than the formal value of the franchise.

2. Holding in mind the business of transportation by rail, this value includes, in the second place, the possession of traffic not exposed to competition, as for example, local traffic. There are, of course, commercial limitations to the value accruing to a railway corporation from this source. For example, the rates for non-competitive business are more or less influenced by the rates for competitive business. The curtailment of demand through excessive charges, also, as well as all those considerations which find expression in the law of monopoly price, act as a commercial restraint in the adjustment of local railway tariffs. But notwithstanding all that may be said in this vein, it yet remains true that commercial considerations offer no guarantee of just and reasonable rates when judged by ordinary business standards; and the margin of surplus earning thus rendered possible becomes the basis of a surplus value, that is to say, a value in excess of the inventory value of physical elements.

3. The non-physical value of the railway includes, further, the value which arises from the possession of traffic held by established connections. The fortunes that have been made in the railway business during the past fifty years have resulted largely from the organization of independent companies into great railway systems. The important point for this analysis, however, is that the amalgamation of connecting lines, as well as the consolidation of competing lines, gives to each member of the operating system thus created a class of traffic which it might not otherwise be able to hold, and consequently confers upon each member of the system a value which it might not otherwise possess;

and, when it is remembered that the rates at which this traffic is moved are not exposed to the competition which would exist were it not for the organization, it is evident that this element of value is likely to be of considerable importance. From the point of view of the influence of competition upon the earnings of railway corporations, the difference between the so-called competitive and non-competitive traffic is less than is commonly supposed. Whether traffic be local or through, competition is no guarantee that it will be carried for what it costs to render the service.

4. The intangible value includes, in the fourth place, the benefit of economies made possible by the increased density of traffic. This statement rests upon what is universally recognized as the fundamental business principle of railway transportation. It means that the growth of population and the consequent increase of traffic, which results from that growth, forces a value into the treasuries of railway corporations with which the ability of those by whom railways are administered cannot be accredited. Were this business exposed to the influence of normal competition, the value in question would be dissipated to the public through a reduction in the price of service. For many reasons, however, this is not possible in the business of transportation, and, as a consequence, the value resulting from economies rendered possible by the increase in traffic comes into the possession of the corporation rendering the service.

5. Lastly, the intangible value of a railway corporation includes a value arising on account of the organization and vitality of the industries served as well as the organization and vitality of the industry which renders the service. This value is in the nature of an unearned

increment to the corporation. It may be said that all industries are interdependent, and that every business depends for its prosperity upon the prosperity of those who are its customers. This is undoubtedly true, but it is equally true that, unless all industries are equally exposed to competition, or are upon the same basis so far as concerns their ability to avail themselves of the advantages of monopoly, some will be able to maintain the value that accrues on account of the wide spread development of industrial technique, while others will be forced to give it up. The significance of this observation in the analysis of surplus value becomes evident when it is regarded as an answer to the claim that the railways have created the wealth of the world and that their compensation cannot, therefore, be too highly appraised. It is a mistaken analysis that overlooks the close interdependence of all the agents of industrial prosperity.

If the above analysis of the origin and nature of surplus value as it appears in the case of a prosperous railway corporation be correct, it is evident that this value exists, because it fails to be diffused to the public through the agency of commercial competition. Were competition able to keep the price of the service of transportation in the case of each and every railway down to the cost of the service rendered, or were it good policy for the government to define a reasonable rate as a rate which coincides with the cost of service, including normal profit, no such value as that under consideration could exist. The capitalization of railways, and consequently the assessment of railway property for the purpose of taxation, would tend to be the cost of reproducing the plant, as in the case of manufacturing properties, whose balance sheets are continuously exposed to the adjust-

ments of competition. The meaning of this is clear. The surplus value of a railway corporation is monopolistic in its origin in the same sense, though not for the same reason, that the rental value of real estate is monopolistic. It is a value contributed by the public to the corporation because of the imperative character of the public demand for transportation. It results from the fact that increased density of traffic, due to the increase in population and to the development of general commercial activities, provides the railways with an ever increasing opportunity of availing themselves of the productive principle which lies in organization. The relative amount of this surplus value, which should be credited to railway managers on the one hand, for availing themselves of the opportunities of increased economies, and to the public whose industrial activities furnish these ever broadening opportunities, is not here in question. The important fact is this, that a portion of the surplus value now enjoyed by railway corporations, is a direct contribution from the public, and that competition is incapable of diffusing this value through a reduction of the price of the service. It is a socially produced value and the logical application of the principle which lies at the bottom of the institution of private property,—namely: that he who produces a thing should be its proprietor,—will lead to the conclusion that the public is a joint proprietor with railway corporations in the property which they control. This at least is the question, which, as it appears to me, the attempt to secure a just system of taxation as between railway property and other property, will be forced upon the consideration of the courts, and should the courts acknowledge the accuracy of the analysis here suggested and extend their definition of property to include a quasi-public property

as they now acknowledge a quasi-public industry, a radical modification of the system of taxation becomes imperative. The situation disclosed by this analysis is one for which the theory of the general property tax makes no provision. That theory assumes value to be homogeneous, whereas the foregoing analysis makes it clear that this is not the case. The tendency in railway taxation of which this paper speaks, is not to be found in the statutes, but in the necessities of the situation. If my analysis be correct, it follows without question that the underlying principle of the financial system of the future will be the recognition of a joint proprietorship between the public and the corporations in all cases where surplus value proves to be a permanent feature. This, of course, assumes that a socialistic programme will not be realized.

DISCUSSION

ON PAPER BY H. C. ADAMS ON TENDENCIES IN RAILWAY
TAXATION

WILLIAM W. BALDWIN: It is claimed by many to be the law that investments in railroads are no longer to be regarded as private property for the purposes of profit.

The merchant, the manufacturer, the banker, the farmer, the miller, the ship owner may derive whatever profit he can from the lawful use of his property and talents, taking the risk of loss; but it is said that the investor in a steam railroad is limited to what is called a fair return upon the value of the property used, which being calculated, is held to mean a return based upon the lowest generally prevailing rates of interest, and without guaranty of any return, and notwithstanding he takes the risk of loss, and often loses. If returns show a larger profit, demand is frequently made that the state reduce the rates, that is, the price a railroad may charge for the service rendered; and, the property being held to be public property, because employed in the business of carrying for the public, the state does reduce the rates.

Now, this status of railroad property, this limitation by law of its earning capacity, should, it seems to me, be taken into consideration by economists in framing laws for its taxation, especially if such laws have a social object. Professor Seligman says that taxation may be utilized for social purposes, and speaks of socialists,—extreme socialists he calls them,—represented in academic circles in this country, who maintain that the social problem is the great problem, and that a tax is not a tax, unless it has a social object, as distinguished from

a fiscal object. In a sense, of course, all taxes are collected for social objects, but in this connection is meant the distinctly socialistic purpose of appropriating, through taxation, as distinguished from the exaction of an equal contribution in proportion to value to meet the fiscal needs of the state.

Are we entering upon a period of such social taxation, or appropriation of railroad property? Are we to have a system of tax laws applicable to railroads only, and based upon the view, that this one class of property in this country has no moral right to earn more than a specified rate of interest or return upon its cost, without guaranty of any return, and that if a railroad shows a surplus, beyond a specified rate, such surplus may be, and ought to be, reached through the taxing power?

Treating railroads as quasi-public property, and restricting their right to surplus earnings through reduction of rates is subject to this powerful limitation which the courts have inserted—that they shall be permitted to earn *some* return upon the investment. But no such limitation will, it seems, be written, even by the courts, into a tax law. The taxing power is practically without limit. The power to tax is the power to destroy. Does the suggestion not appeal to economists who are not socialists, that it is going a step too far to devise taxation as a means of reaching surplus, exclusively for this form of property, now so largely held for investment? It is true that, during the past five year period, railroads have been prosperous, but not more so than many other lines of business; and in the previous five year period, they saw much of adversity, and entire investments were wiped out, which fact cannot be and will not be taken account of in fixing the rate they should now be permitted to earn. Those who are fa-

miliar with the subject of railroad taxation know the practical impossibility of reducing the tax, in the face of public opinion, whatever depressions in business may be experienced ; hence the greater care should be exercised in adopting a policy intended to reach present surplus railroad income through taxation.

TAXES SHOULD BE UNIFORM

That taxes, the means of supporting the government, should be levied with equality, and their burden rest uniformly upon all subjects on which they are laid, is a correct principle, in economics, as well as imbedded in the constitutions of the states. Over and again courts have said, that "A sound tax law must equally distribute its burden among the citizens according to their property."

What reasons, then, are urged for applying exclusively to railroad property a tax system, based upon reaching their surplus earnings, after allowing a rate of return upon property deemed to be socially or ethically sufficient, while no attempt is made to reach the surplus of other citizens and their property by similar methods? In prosperous times, many, if not most, lines of business show surplus income. What economic reasons are given for applying these methods to railroads only?

It is said that the railroad is a peculiar property, and the peculiarity is that commercial forces fail to dissipate its surplus earnings ; which is only another way of saying that its surplus is more permanent or more to be depended upon than is seen in other industries.

Also, that because the state requires complete reports from railroad companies, the amount of their surplus is more easy of ascertainment.

The first reason does not appear to be borne out by experience. The profits of railroads seem to fluctuate with good and bad times and conditions as much as do those of other industries as a class; and their surplus is as quickly dissipated by the blasts of adversity. The average net earnings per mile of the Burlington road for the four years prior to the year 1887 were \$3,420, while the average for the succeeding four years were \$1,618 per mile, one of the consequences of the enactment of the Inter-State Commerce law, and of a strike of locomotive engineers, which may occur to any railroad. At the mercy of the legislature and the commission in the matter of rates, and of the labor union in the matter of wages, no class of property, it seems, must fight harder to prevent the dissipation of its earnings, than that owned by railroad companies.

Another answer is that, if the railroad industry is to be, in effect, subjected to an income tax, some endeavor should at least be made to apply similar methods to other industries; and then, whether their income proves to be temporary or permanent in character, the test will be the same. Regarding the matter of reports, the answer is—get the reports; require other industries, as well as railroads, to furnish them; make some honest effort to lay the income tax upon other industries.

Another reason is based upon an assumption that really goes to the root of the whole matter, namely, that other industries and property are, in effect, taxed in proportion to income, through assessments of value, fixed from frequency of sales, while, in the case of railroads, no such sales can guide the assessor, and therefore a method of assessment through income must be devised.

The assumption is not founded upon fact. Other property is not taxed in proportion to income through

the sales test; it is not assessed at its value by any test. The State Board of Assessors of Michigan announced their finding, that the true value of the general property in that state for the year 1902 was \$1,715,000,000. The assessment in fact of the same property for the same year was \$1,418,251,858, a difference of more than twenty per cent. There is hardly a doubt that, if the investigation of the State Board of Assessors had been thorough, and especially if the assessments upon the general property had been levied upon any basis of income, the disparity would have reached fifty per cent.

THE MICHIGAN PLAN.—AN INCOME TAX.

But, notwithstanding the apparent lack of adequate reasons, there is now in operation in the state of Michigan, unless the courts forbid, a plan for the taxation of the railroads of that state largely upon the basis of income, which is dependent for its results upon the social view that railroads are entitled to earn only a certain designated amount.

It is suggested that the Michigan legislature adopted this so-called *ad valorem* tax law for railroads upon proof that under the gross earnings tax system they were paying less taxes in proportion to the true value of their property than the general property of the state. But this point loses force when it is known that this proof consisted of nothing more nor less than theoretical deductions and conclusions of value previously worked out by capitalizing income at certain low percentages, by the very same experts.

That it amounts to a capitalization of good will, under the names of "organization" and "vitality" and "franchise," and is in effect an income tax, administered with

the social purpose of restricting income through taxation, seems clear enough from the following report of the evidence of Professor Adams. The question was asked :

“Now, what is the difference between this net earnings theory of valuation for the purpose of arriving at the tax and an income tax upon the net income? I mean, not in appearance but in fact.”

Ans. “You have reference to the capitalization of the net earnings direct at a single rate and for a single year?”

Q. “Yes sir.”

A. “I don't think there is any difference except the formal difference that in one case the tax is levied upon a valuation discovered from the earnings and in the other case it is levied directly upon the earnings; the amount to be paid, other things being equal, would of course be the same.”

Q. “So that practically it is a tax based upon the income, isn't it, and not upon a valuation of the property?”

A. “The tax levied upon the capitalization of net earnings year by year would amount to a tax levied upon the earnings themselves, yes sir.”

Q. “The only difference in form is that you capitalize the earnings before you apply the tax, instead of putting it directly upon the earnings?”

A. “Yes sir.”

Q. “That is to say, that, when applied to the capitalization, the tax appears to be lower than when applied directly to the income?”

A. “Yes sir.”

The fact of applying this process year by year, or every five years, upon the average of the earnings each

year for five years, seems to be a distinction without a difference. Indeed, Professor Adams stated in his evidence that the adoption of an average of net earnings over a period of five years was not prescribed in the law, but he added: "In order that the law may be administered as an *ad valorem* tax, and not as an income tax, this method does take a period of years." That is equivalent to saying that it was a mere device to save the face of the law and have that pass for an *ad valorem* statute which is, in fact, an income tax.

PRACTICAL APPLICATION OF METHOD.

The method of administering this process shows that it is really an income tax, the size of which is determined, not by the law, but by the expert's opinion of what rate of return he thinks the owners ought to be satisfied with, taking into consideration the prevailing price of first mortgage railroad bonds, and other evidence. The rate decided upon for the Michigan Central was three and one-half per cent., and the method pursued, as I understand it, was this:

The net income of that company for Michigan was said to be \$2,503,345. This income was divided into two parts. The greater part (\$1,590,352) was capitalized at $3\frac{1}{2}$ per cent., as in his opinion this particular company should be content with that rate of return upon its capital to the extent of \$43,438,599, because that sum represents the estimated cost of reproduction in present form, of all its property as determined by expert engineer Cooley and his investigations.

The remainder of income (\$913,000) was then capitalized at 5 per cent., producing \$18,259,880, which being added to the property value produces \$63,698,479 as a tax valuation recommended to the State Board. Upon

this theorized valuation there was to be levied, not the tax rate to be paid by other property in Michigan in proportion to value, but substantially double such rate. The rate, in fact, levied on all railroads was over sixteen and one-half mills on the dollar. Professor Adams expressed the opinion that the property in fact assessed in Michigan was assessed at 65 per cent. of value, and deduced therefrom the conclusion that the true average rate of taxation was ten mills; yet this railroad property, being first given an exaggerated valuation, then had levied upon it a rate of sixteen and one-half mills.

I will read from page 55 of the Report of the Michigan Board of State Tax Commissioners for 1902, their statement of the method:

"The investigations pursued by Professor Adams covered the economic side of the question of railroad valuation. He took the gross earnings of the various companies and averaged them for periods ranging from four to ten years. The same average was taken in the case of operating expenses, and the difference between the two produced the average earnings from operation. To this sum was added the net income from investments, and the result obtained was called the 'total available corporate income'. From this result three items were deducted, namely, 'rents of Michigan property not included in Cooley Appraisal', 'Interest on interest bearing current liabilities' and 'Permanent improvements in Michigan charged to income'. This process of calculation resulted in either a 'surplus from operation' or 'deficit from operation'. The 'mean value of physical elements', computed from the Cooley Appraisal, was a figure obtained to correspond to the average amount of physical property in use by the railroad company during the period of years for which the

average of gross earnings and operating expenses was taken. On this mean valuation a tax of one per cent. plus an annuity of four per cent. was computed, and the sum of such tax and annuity deducted from the 'surplus from operation', resulting in either a 'net corporate surplus' or deficit. This difference or net corporate surplus was then capitalized at various rates in the case of different properties, ranging from four to ten per cent. according to the security of the business of the specific company under investigation."

This indicates that the basis of the State Board's valuation and assessment was largely the capitalization of income upon the theories proposed; that it rested upon income averages furnished by Professor Adams, running from four to ten years, and upon widely differing rates of capitalization upon income, also furnished by him, and depending upon his opinion of what years to take, and what rates of capitalization to apply, ranging from three and one-half to ten per cent., according to his view of what the owners of the various classes of railway property in that state ought to be satisfied with, or what the social good requires them to accept.

But these theories are only applied to roads whose operations show a surplus. If there is no surplus to be reached, another method attaches. Measured by income, a road whose operating expenses consume all its income in fact possesses only a nominal value. But, in dealing with that class of railroads, the State Board in Michigan, to a large extent, ignores the matter of income. In such cases, the estimate of the engineering expert controls, based upon cost of materials and labor. The Board says in effect, "There is the property and if the owner was improvident in locating his property, and is conducting his business as a public benefit, without reward, although

involuntarily, that is no concern of ours; our duty is to assess 'property' in his case."

Of date, April, 1903, the State Board placed a valuation of \$55,500,000, or \$55,000 per mile, upon the Michigan Central, which the engineering expert had valued at \$32,000 per mile.

The North-Western line (521 miles) with virtually no income was valued at \$27,000 per mile, because, and only because, that was the engineer's estimate. Although valued upon radically different theories the same rate of tax (16½ mills) is levied upon both of these roads.

In 1902, the net earnings of the North-Western road in Michigan were \$445 per mile; and the taxes levied by the State Board were \$468 per mile; in 1903, the earnings were \$568 and the taxes \$454. These were both years of unusual prosperity. When the adverse period comes, the taxes will remain but the earnings will vanish. Are they having in Michigan a lesson in the problem of how to utilize railroad taxation for social objects?

THEORY OF NON-PHYSICAL VALUE.

One cannot fail to be interested in the argument by which income seems to be made to perform duty as being or representing an "immaterial" or theoretical property element, supposed to inhere peculiarly in a railroad. The Michigan law is an *ad valorem* law, which renders it necessary to define the elements of this immateriality; and they are accordingly defined in the letter of Professor Adams to the State Board of Tax Commissioners, dated October 4, 1900, as "franchise," as "the possession of local traffic," as "the possession of traffic held by established connections," as "the benefit of economies made possible by density of traffic," and "the fact of or-

ganization and vitality existing not only in the railroad but in other industries which it serves."

He was asked this question: "In the final result, does it make any difference what the elements of the non-physical property consist of?"

Ans. "Not according to this rule."

Q. "You named some of the elements. Now strike out every one of those elements except one, and would not the result be exactly the same as if they are all considered?"

A. "The result in figures would be the same."

In amplifying this view of certain non-physical elements as being "property" of a railroad which ought to be taxed, Professor Adams said: "A railroad is more valuable which runs through a territory full of bright, energetic people;" also that "intelligence, sobriety and willingness on the part of laborers to submit themselves to discipline are conditions under which industries exist and which make them succeed; that "the railroads of the North are more valuable than those of the South, on account of the nature of the employees and the people;" and, while discussing the question of "organization" and "vitality" as taxable elements, he said: "If the schools of Michigan were disorganized for a generation. the railroads would not be worth very much."

Other features and conditions, almost without limit, could, of course, be named which potentially affect the earnings and incidentally the value of railroads, such, notably, as the character of their traffic, and, above all other influences, the ability of their managers and the extent to which they can secure remunerative rates for their business; but who will capitalize these elements?

I do not understand that Professor Adams has made an estimate of values for "traffic density," nor for "or-

ganization," nor again for "vitality," any more than an estimate of value for the presence and efficiency of the Michigan schools. Why? Because they are, one and all, simply features of the good-will of a railroad, in the same way that similar features constitute the good-will of any business. The only means of valuing then suggested is by capitalizing earnings; and, in its results and effects, it is an income tax, pure and simple, and it only confuses the subject to pretend otherwise.

There is no income tax in Michigan, and no evidence that any other class of property in that state is taxed upon its good-will, as such.

AD VALOREM LAW NOT AN INCOME TAX.

Economists say that the fundamental idea of an *ad valorem* tax law is, that it rests upon property, without regard to ownership or the proportion of protection furnished, and without regard to the ability of the owner to pay a uniform rate to be levied upon all property in proportion to its value.

An income tax, on the other hand, rests entirely upon ability to pay, as measured by income. When the income is derived from property it is taxed regardless of the value of the property itself. Vacant land, however valuable, produces nothing to the income tax, while property, such as a telephone system, having small value apart from its peculiar use, may show large receipts which an income tax would reach. Governments decide which system, the property tax or the income tax, is, on the whole, best suited to their condition and necessities, and it is easily conceivable, may adopt a system combining the two, that is, for taxing the land and all interests in land, and all tangible personalty, according to value, and likewise, taxing all incomes, with ade-

quate provision against double taxation, that is, that no property which has paid the *ad valorem* tax shall in addition pay an income tax.

Such an income tax law would be carefully drawn, and all interests be guarded so as to ensure equality and uniformity between tax payers. But that is a totally different affair from an income tax administered as an *ad valorem* law, or an *ad valorem* law administered as an income tax. In the first case, income might be determined, not from actual receipts, but from expert calculations of what income ought to be produced from property having a certain estimated value. In the second case, value is determined from income capitalized. Still different is an *ad valorem* law administered with a social purpose, that is, through the selection of a certain class of property, and limiting all property in that class possessing income to a percentage return deemed socially sufficient, and capitalizing such property upon that percentage, while all other property in the class is valued at cost of reproduction in present form, without regard to income?

A well-known economist recently made a public plea, on moral grounds, for taxing railroads and similar public service corporations by some mathematical rule that will eliminate the necessity for the exercise of discretion by assessors, saying that "opportunity for bribery gives equal opportunity for blackmail."

Anyone who will master the process of making a valuation of the different Michigan railroads under the so-called *ad valorem* system, as administered in that state, will find an amount of discretion, and an assortment of various kinds of discretion, that seems to be without parallel.

RESULT IS EXCESSIVE TAXATION.

That the installation of this method in Michigan, if approved by the courts, will result in excessive taxation of railroads, compared with other property, goes without saying.

Judge Grosscup deemed the capitalizing of the earnings of a street railway as a measure of the value of its franchise, consisting, as it does, in the monopoly of the streets of a great city, at the rate of six per cent, to be a fair rate, considering the risks and the necessities for renewals, etc.

A commission of well-known experts, asked recently to find the proper scientific basis for compensating parties contracting with the government for pneumatic tube service, in order to allow investors a fair return, reported as follows :

	Per ct.
1. Interest on the actual cash investment.....	4
2. Additional profit on the actual investment, in order to compensate for risks, necessary in order to induce investments, 3 to 6	
3. Renewal fund, to be set aside for replacement of the property in 20 years.....	3.23
4. To pay taxes of all kinds.....	1
Maximum total	14.23
Minimum total	11.23

This amounts to saying that an investor, putting cash into a public utility plant, should have, as compensation, if his plant be of a sort that it may quickly be worn out, or become obsolete by reason of new inventions, or other displacement, of 14.23 per cent.

If the plant be of an enduring character, as for example, a masonry dam, in the case of water works on a site

that is owned in fee, the risk of deterioration diminishes; and the total return which the investor may require is reduced to 11.23 per cent.

Such percentages, applied to the income of Michigan railroads, would manifestly produce a radically different valuation of those roads which have a surplus, from that announced.

Capitalization of the \$2,500,000 net earnings of the Michigan Central Company on the Grosscup plan would show a valuation of \$41,666,000, instead of the \$63,698,479 upon the same property and the same income, as proposed by Professor Adams.

Professor Emory Johnson, after full consideration of Professor Adams' method, stated in evidence that, in his opinion, a correct application of that method to the Michigan Central would take the average of net earnings for a ten year period, and deduct therefrom 6 $\frac{2}{10}$ per cent. on the valuation of the physical property, and capitalize the net corporate surplus remaining at 6 per cent., plus the tax rate. Computed thus, the value of the "franchise" of the Michigan Central was found to be \$3,227,000, as compared with the valuation by Professor Adams of the same franchise for the same year at \$18,259,880.

Shall the amount of taxes which the railroad company must pay depend less upon its actual value and its actual income, than upon the question of what expert is employed to fix the percentages and to make the calculations?

Differences of opinion as to value in the Michigan estimates were, by no means, confined to the franchise feature. In the case of the Pere Marquette Railroad, for instance, the engineer employed by the State Board found a present value, based upon cost of reproduction,

of nineteen million dollars, while another equally competent engineer, representing the railroad company, determined the value of the identical property to be eleven million dollars.

QUESTION OF RATE AS IMPORTANT AS QUESTION OF
VALUATION

But the question of valuations is, after all, only a part of the problem. If, in fact, the rate of tax laid upon the real value of other property in Michigan is ten mills on the dollar, or less, why should railroad property, upon any method or by any system, be required to pay a rate of sixteen and one-half mills? No consideration of the so-called Michigan plan can be adequate which ignores this feature of the case. Economists apparently devote themselves to the question of devising theories for securing a complete financial estimate of all the features of a railroad, when the question which might well engage their attention in this connection is, what part of this value shall be subjected to taxation, in placing the tax burden upon this class of property, the same as it in fact, rests upon other property, in proportion to value?

Professor Meyer says that a railroad is worth what it can earn. Professor Seligman thinks that taxation of net receipts is a more equitable system of taxation than any other, and, speaking of the operation of the Ford, bill in New York, says that its object is to hit the difference between the value of the tangible property and the total value of the corporation, or the good-will of the business. Professor Adams' paper read to-day is devoted largely to showing that there exists a peculiar element of value in railway property, that may be reached for taxation by widening the jurisdiction of the general

property tax, so as to reach this peculiar value, meaning the value of the business as a going concern.

The North-Western Railway, meanwhile, in the state of Michigan, with no change in its property and no addition to its earnings, finds its tax bill in the first year of this widening of the jurisdiction of the general property tax, leaping from \$78,000 to \$234,000, and the proportion of tax to net receipts reaching a modest one hundred and five per cent.

It will not do to say that economists are not concerned whether railroads are compelled to pay more than an equal share of the taxes of the state, in proportion to the value of their property, compared with all the other property. That is the very question about which they ought to be concerned. The aggregate assessment made by local assessors upon the real and personal property in the Michigan counties in which the North-Western road is situated, is below fifty per cent. of the true aggregate of such property, and the rate levied thereon does not exceed ten mills; but the property of the railroad company, in the same counties, is assessed at over one hundred per cent. of full value, and a rate of $16\frac{1}{2}$ mills is levied upon that assessment. No fair-minded economist will justify such inequality. If, in the general assessment, through undervaluations and omissions from assessment, it results that the total valuation of the general property does not exceed thirty or fifty per cent. of value, that fact must have consideration in any logical or just administration of the *ad valorem* system. On the other hand, if income is made the test, a railroad is no more worth what it can earn than other property is worth what it can earn. If income is the most equitable measure of value, then pro-

vide an income tax that will reach the income value of all business enterprises alike.

CAN EQUALITY BE SECURED BY TAXING NET EARNINGS
DIRECT?

The law of Michigan which we are now considering provides for the ascertainment of what is denominated the "average rate" of taxation, by dividing the sum of the valuation of the general property of the state into the aggregate tax collected from the general property; and this so-called "average rate" is levied upon every railroad wherever located.

Is it not feasible to ascertain by investigation what is the true aggregate annual income of the general property of the state, and deduce therefrom the proportion of such income which, upon the average, is paid in taxes by the general property, and fix that as the rate which each railroad company shall pay upon its net receipts?

I am speaking now only of the economic, and not of the legal, aspect of the matter. Under the present system, we can draw from the general property, to compare with railroad property, no test except a local assessment, crude, contradictory, and made by the tax payers themselves, or by those whom they elect to office, from which is deduced what is called an "average rate", to be levied upon railroads at excessive estimates of value, derived from capitalizing their earnings at low rates.

Economists can surely devise methods for ascertaining the proportion of earnings paid in taxes by property in general and applying such rate to the net earnings of railroads, which will produce less inequality and injustice than grows out of such manifest maladministration of the *ad valorem* law.

If I do not misunderstand Professor Adams, he may

not dissent, in principle, from this view of broadening the income tax. Referring to certain manufacturing industries doing business under conditions which may secure to the proprietors a return considered in excess of the normal return, he says :

"The government retains the right to regulate prices, if need be, so as to extinguish any surplus value".

He would doubtless be willing to add that the government, in addition to regulating the prices of such manufacturer, may also tax him, if need be, so as to extinguish any surplus value in his property.

Are economists ready to inaugurate this tax system for such industries? Take, for illustration, the banking industry. That capital employed in banking enjoys a much higher return than that invested in railroads, is well known ; and it therefore must be in excess of the normal. Shall government employ the taxing power as a means of extinguishing surplus value in the banks?

It may be of comparatively little moment that owners of railroads protest against the application of these methods to their property, as a class, and to no other property ; but it is a matter of importance to us all to know whither we are tending.

PREFERENTIAL TRADE BETWEEN BRITAIN AND CANADA

ADAM SHORTT

The question of preferential trade as between Britain and her colonies is one into which theory enters merely as one of the factors in a concrete situation. As every close student of practical affairs is aware, in concrete situations, doubtful or false theories often have much more weight and are far more real than true ones, in the sense at least of actually influencing actions and producing results. In dealing with concrete national policies we have, therefore, to ask such leading questions as the following : What do these people imagine they are doing ? What are they actually doing ? What can they be persuaded to attempt ? And, if astray, how long will it be before they discover their mistake ? And, very often, what kind of new mistake will be accepted as a remedy for the old ?

Now, at first sight, it might seem strange that Canada should have any difficulty about preferential trade with Britain, when she apparently originated the scheme, first put it into practice, and still substantially stands by it, even if in modified form and with growing opposition on the part of special interests. In order, therefore, to show whence arose the present situation and what are its leading characteristics, it will be necessary to summarize a little tariff history in connection with the advent to power of the Liberal Party in Canada and its policy in dealing with the tariff.

The Liberal Party during its last period in opposition, from 1878 to 1896, had steadily opposed the principle

of a high protective tariff. In the interests of the public at large, but without prejudice to the manufacturers, they advocated such freedom of trade as was consistent with a tariff for revenue only. They particularly favoured the promotion of trade with Britain and the United States. Latterly they took comfort and encouragement from Mr. Cleveland's campaigns for a lower tariff. As the people of Canada were beginning to discover that the prosperity promised by the National Policy was rather slow in arriving, the Liberal policy was rapidly making converts. Even Conservative leaders talked tariff reform, though the majority still adhered to the principle which had brought them into power and had for some time sustained them. The principle of reciprocal trade, on the basis of treating other countries as they treated Canada, had been frequently discussed, but came more definitely into view during the last years of Conservative rule. The proposition was given special point under the influence of the Dingley tariff, which greatly cooled the ardor of Canadians for better trade relations with the United States, and turned attention towards the value of the British market for Canadian goods and the possibility of a more favourable treatment of British imports in return. At the same time the Liberal Party, more particularly under the leadership of Mr.—afterwards Sir Wilfrid—Laurier, recognized the impossibility of altogether abandoning the principle of protection with reference to those industries which had been brought into existence through the National Policy, but which had never been able to outgrow their infancy. Still, the party continued to advocate a considerable readjustment and modification of the protective principle,

in the interests of consumers and of industries natural to the country.

Under such pledges, the Liberal Party came into power in 1896. Once in office, their views on tariff reform were still further modified. This was in some measure due to the representations of the manufacturers before a tariff commission which the new government appointed. Resentment at the anti-Canadian clauses in the Dingley tariff had been steadily growing, while the liberality with which Britain had treated Canadian imports was, by contrast, being more vividly realized. The Liberal Government, therefore, on succeeding to office, found itself between two fires. On the one hand it was expected to redeem its pledges to favour the consumer and lower the tariff, while on the other it was urged to respect the established system under which the industries of the country had been protected from hostile competition. The principle of reciprocal tariffs afforded a clue to a practical policy of ingenious compromise, which would enable the government to claim the virtual redemption of its pledges, while at the same time avoiding the unpopular course of apparently turning the other cheek to the United States.

By the new tariff policy of 1897, after a well considered readjustment of various specific articles, including the raising of duties in a few instances, a general reduction of the tariff by 12½ per cent, except on a few articles such as spirits and tobacco, was granted upon imports from all countries which admitted Canadian goods at equally low rates of duty. This seemingly sweeping reduction of the tariff, which constituted the redemption of the party pledges given while in opposition, was found on examination to apply to no considerable traffic outside that with Britain. In virtue

of special clauses in British commercial treaties with Germany and Belgium, goods from these countries were also included, pending a denunciation of the treaties, which soon took place. As promised in 1897, a further reduction of the tariff took place the following year, increasing the preference to 25 per cent. As the device had proved a very popular one, and its limited application was now well recognized, the wording of the preference was changed from the general to the particular, and the reduction specifically limited to the British Empire, although important sections, such as Australia, have not yet availed themselves of it.

Thus the Canadian preference on British imports was the outcome of no bargain with the British Government, or of no theories as to the advantages of inter-imperial trade. It expressed no sacrifices on the part of Canada for the benefit of the mother country. It was undertaken entirely in the interests of Canada, and as, under the conditions of the time, the only advisable direction in which to carry out the oft repeated pledges of the Liberal Party. Their political opponents strongly criticized the preference on the ground of its being an infringement of the National Policy, and as certain to affect most injuriously the industries of the country. This position has never been given up and is still employed in appeals to the manufacturing interests. But, as soon as it was perceived that the preference was by no means about to accomplish the promised ruin of Canadian industries, the Conservatives shifted their centre of attack, and made a vigorous assault upon the Government for having gratuitously granted to the mother country a valuable concession without exacting any sacrifice in return.

This criticism, it will be observed, proceeded upon

two assumptions : First, that Canada did not undertake to lower the tariff upon British goods for her own benefit, but had made a distinct sacrifice of her normal interests for the express benefit of Britain ; Second, that Britain would have been willing to alter her whole fiscal system and tax her world supply of food and other raw materials, as a return for the Canadian concession on less than five per cent of her trade. Neither, of these assumptions was true.

Nevertheless, under the influence of subsequent events, it has come to suit the tactics of the Liberal Party to accept the general interpretation of the preferential tariff, as a sacrifice made by Canada in favour of the mother country. It is represented, however, as a sacrifice prompted by pure generosity, and thus as contrasting with the harsh and ungenerous Conservative policy of an eye for an eye and a tooth for a tooth. Of course the Canadian favour might or might not be met by some equivalent concession on the part of Britain, but as far as Canada was concerned it was, *noblesse oblige*.

Tactically the Liberal position enjoys an immense advantage over that of its opponents, for, on the one hand, it proves the Liberal party to be much more loyal and at the same time magnanimous, than the Conservatives, towards the mother country. And this has a fine local flavour, since the Conservatives have always attempted to pose as the party of loyalty, par excellence, and have affected a more or less pharisaical attitude of suspicion towards the implied republican tendencies of the Liberals. On the other hand, while exacting nothing from Britain, the Liberal Government may gracefully decline to concede further preferences until Britain has returned the compliment. Moreover, with-

out the embarrassing necessity of breaking any bargain, or receding from any agreements, the government may modify or withdraw any part of the preference, wherever it has a tendency to unduly stimulate the importation of British goods. This was actually accomplished, last session, in the case of textiles.

And now as to the influence of the preferential tariff in stimulating imports from Britain or from the rest of the Empire. As the adoption of the preference happened to coincide with the beginning of the recent period of economic expansion throughout America, increasing prosperity accompanied its career and led to its being well received. But it by no means had the effect anticipated by either friends or foes. Except in the textile trade and some sections of the metal industries, the preferential treatment of British goods did not specially stimulate importation; and even when, in 1900, the preference was increased to $33\frac{1}{3}$ per cent., no appreciable difference was noted. Canadian imports all round have greatly increased during the preferential period, and British imports among the rest. But the significant fact is that, in spite of the preference, British imports have failed to increase at anything like the same ratio as those from foreign countries, as the following table will show. Taking the values of goods entered for home consumption from the leading countries of the world, and also the total imports, and comparing the year 1896, which was the year before the introduction of the preference, with the year 1903, we have the following results:

VALUE OF GOODS ENTERED FOR HOME CONSUMPTION
FROM

	1896.	1903.	Percentage of Increase.
Great Britain	\$ 32,979,742	\$ 58,896,901	78
United States	58,574,024	137,605,195	135
France	2,810,942	6,580,029	134
Germany	5,931,459	12,282,637	107
Spain	361,778	823,944	128
Portugal	46,596	129,192	178
Italy	230,917	541,785	135
Holland	299,852	1,270,540	324
Belgium	920,758	2,800,182	200
Newfoundland	551,412	1,197,581	117
West Indies	1,896,426	2,379,275	25
Switzerland	332,120	944,727	182
Total	\$110,587,480	\$233,790,516	111

That the preference has not arrested the downward tendency of the share of Britain and the rest of the Empire in Canada's imports is further shown when we compare the percentages by decades from 1883 to 1903 :

PERCENTAGE OF CANADIAN IMPORTS OBTAINED FROM

	1883.	1893.	1903.
Great Britain	42.27	35.45	25.19
The British Empire	45.32	37.75	27.81
Foreign Countries	54.68	62.25	72.19

That the decline is still continuing is shown from the latest statistics. According to the British trade returns for the first nine months of this year, as compared with the first nine months of last year, we have a decline in the British exports to Canada and Newfoundland from \$44,108,215 to \$42,618,460, or a loss of nearly one and a half millions in the last nine months.

Taking the percentage of the total Canadian imports obtained from Great Britain and the United States respectively, in 1896 and 1903, and also the proportion of duty paid on British and American imports, we have the following :

	Percentages of Total Canadian Imports		Percentages of Total Duty Collected	
	From G. B.	From U. S.	On Brit. Imps.	On Amer. Imps.
1896 -----	29.82	52.91	36.39	38.42
1903 -----	25.19	58.86	26.52	46.0

From this we learn that whereas between 1896 and 1903 the percentage of British imports has declined from 29 to 25, the percentage of American imports has increased from 52 to 58. But on the 25 per cent. of British imports in 1903, notwithstanding the preference, 26 per cent. of the whole revenue was collected, while on the 58 per cent. of American imports only 46 per cent. of the total revenue was collected.

Now what these figures indicate, and what might be illustrated with much greater detail did time permit, is this: In the first place, we obtain from Great Britain mainly manufactured goods. Such raw materials as she sends us are, as a rule, not her own product. To considerably increase the importation of British manufactured goods, beyond what we have always taken because we needed them or could not produce them ourselves, would involve cutting in upon our own manufacturers, as in the case of the textile and metal industries, where under the preference the chief increase in British imports has been secured. Now our Canadian manufacturers strenuously object to sacrificing any part of the home market to competitors in Britain, and that they are quite capable of making their objections felt is evident from the partial repeal of the preference at the last session of the Canadian Parliament. Once assure them adequate protection, however, (and Americans will quite understand what that signifies,) and they have no serious objection to taking as much further protection against the world beyond the empire as the Canadian people may be willing to grant them, under the impres-

sion that thereby they are affording a preference on British imports. And if, in return for such a preference, the British public can be persuaded to place a duty upon those articles of food and raw material which we send them, when they come from beyond the Empire, the manufacturers will hold up both hands for it, since it may have a tendency to increase the number of settlers in Canada to become customers for their goods. In other words, if Britain will send us settlers and take their produce under a preference, our manufacturers will gladly supply the wants of the settlers for manufactured goods. It is only fair, however, to many of our more straightforward manufacturers to say that they regard such proposals in their proper light. Having too much respect, alike for themselves and their fellow citizens in Britain, they frankly declare that adequate protection to Canadian industry means the virtual abolition of any real preference to Britain.

But Mr. Chamberlain himself, before he started out on his present strategic detour with a view to outflanking the colonies, was fully alive to the significance of a preference which involved as a basis adequate protection for the colonial manufacturer. Thus, in his address to the colonial premiers at the last Imperial Conference in London, having the Canadian preference in his eye, he said, "But, so long as a preferential tariff, even a munificent preference, is still sufficiently protective to exclude us altogether, or nearly so, from your markets, it is no satisfaction to us that you have imposed even greater disability upon the same goods if they come from foreign markets, especially if the articles in which the foreigners are interested come in under more favourable conditions." And, with special reference to Canada,

"in spite of the preference which Canada has given us, her tariff has pressed and still presses, with the greatest severity upon her best customer and has favoured the foreigner, who is constantly doing his best to shut out her goods." Now this position, in the light of recent movements and discussions on the part of the Canadian manufacturers, is more valid to-day than it was two years ago.

But, say some, when cornered on this point, let Britain supply the goods now furnished to Canada by other countries, such as the United States, Germany, France, etc., and the preference will surely aid her in doing so. The reply to this is twofold. In the first place, if the present preference of one-third has not enabled Britain to even hold her own with foreign countries, she will have still less chance of doing so when the tariff is raised all round. For one of the chief objects of the proposed increase is to shut her out of those lines in which she now has an advantage in the Canadian market. In the second place, a detailed study of Canadian trade with Britain and her leading foreign competitors, especially the United States, reveals the true reason why neither the present preference nor any other that is at all within the range of practical politics, can greatly increase the proportion of British goods imported into Canada.

Nearly sixty per cent. of Canada's imports come from the United States, and when we examine them more closely, we find the great majority to be made up of such goods as coal, raw cotton, corn, wheat, raw tobacco, cattle and other live stock, petroleum, twine, carriages, machinery, settlers' effects, fish, farm implements, India rubber, coin and bullion, etc. More than one-half of

the American imports are free goods, many of them, in consequence, going to swell the volume of our exports to Britain. Of the dutiable goods a very large proportion consists of materials, implements and articles which are really not produced in Britain, or not in such forms as are at all suited to Canadian needs.

Canadians and Americans live under similar conditions on this continent, have practically the same fashions, habits, standards and methods of life and work. They use the same implements, machines, means of transportation, styles, materials and details of buildings, together with all their interior fittings. Hence, outside of those lines in which Britain already holds most of our trade, when we do not use Canadian, we desire American goods. When we examine our German, French and other imports, we find that a large proportion of them represent other phases of specialized trade, which cannot be shifted by preferential arrangement other than of the most drastic character. In the case of raw materials and goods of large bulk, where national, technical, aesthetic and other such qualities do not count, the trade can be shifted by preferential treatment, but these are either not furnished by Britain or she enjoys the trade already. Thus, so far as the preference has stimulated imports, it has been chiefly at the expense of the Canadian manufacturers who live by the tariff and suffer from its reduction. Unless, therefore, we sacrifice to Britain bodily those industries in which her goods are capable of supplying our markets, there is little else that we can put in her way by fiscal arrangement. This, then, is the chief explanation of the unfavourable statistics connected with the preference.

On the side of Canadian exports to Britain, we cer-

tainly have nothing of which to complain, for we already find in Britain by far the largest, most natural, and most accessible market which we have. At present she takes 58 per cent. of our total exports, and that without any sacrifice on her part, but simply because she finds it profitable to do so. This is a market capable of still further expansion if we continue to improve the quality of our exports, as indeed we have been doing, and this is surely the only safe basis upon which any country can hope to expand its trade. We have no need, therefore, to clamour that extra burdens shall be laid upon our fellow citizens in Britain for our benefit, especially when these burdens must affect, not the luxuries of the rich but the most elementary necessities of the life and industry of the masses.

Further, it is an entirely uncalled for reflection upon our country and our people to represent the one as capable of attracting settlers and capital only on the precarious basis of a bounty obtained from the British tax-payer; or the other as certain to repudiate the British connection and resign their national independence to another connection, unless the people of Britain bestir themselves to beguile us once more within the leading strings from which we have escaped. The fact is that our own national future, with its many problems and possibilities, is opening out before us with such attractiveness and with such responsibilities that, while it is our obvious policy to maintain good relations with all the world, it would be the height of folly to tie ourselves up under any hard and fast obligation, either commercial or political, for, in view of our constantly changing circumstances, these might prove most embarrassing within a very short time. A country in our

position must, in the light of its own experience and that of its neighbours, retain a perfectly flexible command of its policy and relationships. In that position we shall be in line with the very best traditions of Anglo-Saxon freedom. These also are the only terms upon which we shall be able to retain our respect, affection and loyalty towards the mother country, in whose traditions we are proud to share, but which we can only retain with true British self-respect when they appeal to the obligations of honour, not to the obligations of requisition.

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PREFERENTIAL, TARIFFS AND RECIPROCITY

G. E. FOSTER

I. PREFERENTIAL TARIFFS

Since 1879 Canada has enacted tariffs based upon the principle of protection. These tariffs have varied from time to time, both as to the range of dutiable articles and the rate of duty imposed, and have all included a varied and generous free list made up principally of raw or of partly manufactured materials for use in the production of finished goods.

The average rate upon dutiable imports has not been excessive. In 1879 it was $23\frac{1}{3}\%$; in 1887 $28\frac{3}{4}\%$; it reached its highest, $31\frac{3}{4}\%$, in 1889; in 1896 it had declined to 30%, and in 1903 stood at 27.15%. The free list has always been large, running from 70% of the total imports in 1879, to 61% in 1896, and 60% in 1903.

In 1897 the following clause was enacted as section 17 of the tariff act of that year: "That when the customs tariff of any country admits the products of Canada on terms which, on the whole, are as favourable to Canada as the terms of the reciprocal tariff herein referred to are to the countries to which they apply, articles, whether the growth, produce or manufacture of said countries, when imported direct therefrom, may then be imported direct into Canada or taken out of warehouse, for consumption at the reduced rates of duty provided in the reciprocal tariff set forth in schedule D."

This was in effect a general reciprocity clause under which imports from free trade and low tariff countries came into the Canadian market at the reduced rates with-

out any return advantages to Canadian exports in their markets. In addition thereto, owing to the existence of the Belgian and German treaties with Great Britain, imports from these countries received the benefits of the Canadian reduction without giving any return advantages to Canadian exports. And, still further, any countries having most favoured nation clause treaties with Great Britain could claim the like favoured entrance for their exports to Canada.

This situation was relieved by the denunciation on the part of Great Britain of the Belgian and German treaties, and, on the part of Canada, by the repeal of section 17 above referred to, and the substitution therefor of a special preferential clause applicable to the British Empire alone. This was done in 1898 and the preference was fixed at a reduction of 25% of the general duty. In 1900 the reduction was increased to 33 $\frac{1}{3}$ % at which it still remains. This preference does not apply and is not meant to apply to any but British countries. It is now operative in respect to the United Kingdom, Bermuda, British Guiana, the British West Indies, British India, Ceylon, the Straits Settlement, New Zealand, the Cape of Good Hope, Natal, the Orange River, the Transvaal and the British territory of South Rhodesia. The above legislation was the result of a somewhat prolonged discussion and of resolutions of intercolonial conferences held in Canada and London looking to the betterment of trade relations between the various members of the Empire. The idea met with a ready and hearty response in the Colonies but was less generally approved in the United Kingdom, owing first to the existence of certain favoured nation clause-treaties between it and other European countries and, secondly, to the fact that its

full practical operation required a modification of the accepted practice of free trade. The action of Canada in 1898 in granting a preferential treatment to the products of Great Britain, without stipulating for any return, encouraged and stimulated the friends of the movement everywhere. The result has been the adoption of the principle by most of the colonies and the formation of a very large and influential body of sentiment in its favour in the mother country, and the establishment of an active propaganda for its adoption there under the leadership of the Right Hon. Joseph Chamberlain.

Imperial preference contemplates an arrangement by which each British country grants a preference to the products of every other in its markets to such degree and on such articles as it may deem best, and, by thus giving an advantage to the British exporter over the foreign exporter, emphasizes the family relationship and stimulates production and trade within and throughout the Empire. Each keeps its own absolute and separate powers of fiscal legislation unhampered by treaties and without interference by any others. The scale of duties that for revenue and protective purposes each deems it wise to enact, is entirely within its rights as to amount, items and changes to suit altered conditions; only, whatever these may be and however they may be changed, a member of the family, by having a preference, is secured a more favorable position than the foreigner. This does not preclude and may invite conference between the several members as to the extent and degree of preference to be given and in order to ensure greater permanence and wider effect. Inasmuch as all parts of the Empire, except the United Kingdom, have general tariffs, the basis for preference exists on

their side and the preference itself is easily made mutual as between them.

The United Kingdom which has no general tariff must, in order that the idea of mutual preference may be completely realized, so far modify her present system as at least to place a small duty upon certain staple natural products such as the Colonies produce, such duties, however, to be remitted in whole or in part as regards imports from the Colonies. If at any future time, she were to adopt the protective system generally the preference could be applied and extended as is now done by Canada and the other Colonies.

Public sentiment in Canada is undoubtedly overwhelmingly in favor of the preferential system. As a theory it was advocated by the leaders of both parties previous to 1896, and has been supported by both parties since its enactment in 1898. In the press and on the platform it receives general commendation and support.

It is true that Canadians and Colonials generally, as well as Preferentialists in Great Britain, desire a mutual preference and do not consider the arrangement complete until the mother country puts herself in the fiscal position to make a return preference to such a degree as can be done without detriment to her own vast interests. But they are patient and considerate of what such a step involves and are content to have it worked out gradually in both time and extent.

Preference is desired from at least two considerations: business and imperial, and the greater of these is the latter. At no time in the history of the Empire has the trend been more strongly and unmistakably in the direction of unity and closer co-operation. The very growth and extension of the national Canadian feeling, which, since confederation, has been so noticeable has,

instead of making for independence, only strengthened the feeling of loyalty to the Empire and stimulated the desire to co-operate in its development and share in its advantages. The revelation of our immense and varied resources, and the pride and confidence in the future which these inspire, marches side by side with our better understanding of the resources of our sister colonies, and both flash their irradiating light upon an imperial future which shall possess the greatness and dignity and commanding mission of a world wide confederation united under a common flag and with a common ideal. This Empire embraces within its bounds every variety of climate, soil and production, every element of enterprise and adventure, and every possible form of growth and development. In it are continents and islands, arctics and tropics, rivers, lakes, sea, oceans, prairies and mountains, variety of races and creeds, literatures and philosophy, newness unexplored and antiquities of the most ancient, all combined in a vast imperial inheritance, glorious in memories and vivid in unrevealed prospects. To hold common citizenship and possess common rights in so vast and wonderful a confederacy inspires the heart and fires the imagination, and the age of steam and electricity reduces all this vastness to a practical sphere of obedient direction and easy regulation.

Every year in the last quarter of a century has contributed its quota of wider knowledge and better understanding and has increased co-operation among the members of the Empire.

Colonial burdens are shared by the mother country. Imperial burdens are shared by the Colonies and great inter-Imperial enterprises are shared by both. As the

powers and independence of the Colonies have grown, the trust and confidence of the mother country have increased. The test of empire has been applied even to the decisive arbitrament of war, and the great fact established that the children of Greater Britain are as ready to fight in defence of the Empire as the children of the North Sea Isles have for centuries been to found, sustain and defend the Colonies.

From this broad and fertile soil of sentiment and union of effort has sprung the conviction that co-operation in trade has its part to play as well. All the elements of interchange exist within the Empire, every variety of product is found there. The adventurous sea laves every shore inviting to commercial enterprise and intercourse. Two values and two profits in production and exchange are possible within the Empire itself for the stuff of every commercial transaction, and the profits of carriage as well. Cottons in Africa and Asia, wools in Australia and the Cape, wheat in Canada and India, butter and cheese and meats, tropical fruits and sugars, tea and coffee, precious stones and metals, all can be produced in the Empire, finished within the Empire and exchanged within the Empire, and the added wealth of all expended therein; all to the advantage, the progress and the strength of the Empire. The adventurous progeny of the old lands can find preferential ground suited to them, and though changing from one clime to another still be retained for the Empire. The billions of money and the millions of producers that now go out of the Empire to stimulate production and build up strength in foreign and hostile countries, could in great part be kept within the Empire and with inestimable gain.

These are samples of the considerations which form the hard business basis of imperial preference, and, from these, details easily fashion themselves in endless variety, and both go to prove that the business reasons for preference are not merely selfish and ignoble.

As to the results in a commercial sense of the preference, initiatory and one-sided and brief as it has been in its course, it may be cited statistically that from 1900 when it became practically operative to 1904 the imports into Canada from the United Kingdom have increased from \$44,000,000 to \$61,700,000 and the exports from Canada to the United Kingdom from \$96,000,000 in 1900 to \$117,500,000 in 1904. How much of this increase has been due absolutely to the preference and how much to the general increase of trade in that period is a matter of opinion, but that the preference has tended to increase trade is undoubted. Figures of trade exchange are, however, not by any means all or the best indicia of progress. The mutual interest excited, the greater knowledge diffused, the feeling of common citizenship aroused and the union of sentiment and ideal induced, are much more far reaching and powerful, and their influence is enduring and productive.

2. RECIPROCITY

I now come to the second branch of my subject, reciprocity :

This word has had little or no meaning in Canada except in relation to the United States. With no other country, except in a very limited degree with France, have we ever had a reciprocal treaty, and with few others have any negotiations been had with a view of obtaining such a treaty. But with regard to the United States, reciprocity and the controversies connected with

it have been familiar to Canadians for the last half century.

In early times reciprocity with the United States was looked upon as almost essential to anything like commercial prosperity. These were the days when ocean voyages were long, dangerous, and costly; when British markets were distant and returns tardy; when we were mainly sellers of staple natural products, chiefly of lumber and fish and live animals; when we manufactured little and bought our finished goods mostly from abroad; when our transport system was in its infancy and confined mainly to the natural waterways, and when our Provinces were scattered and disjointed.

To our people the United States markets, owing to propinquity and large consuming population and diversified manufactures, seemed both for buying and selling, a necessity. The repeated endeavors of Great Britain at last succeeded in negotiating the Elgin Treaty, which went into effect in 1854, and so remained until, after denunciation by the United States, it was terminated in 1865.

Thereafter a series of attempts at renewal of the old Treaty or negotiations for a new one was made by successive Canadian Governments, and in some instances arrangements were practically agreed upon, but in the end were not ratified by the United States.

These repeated refusals and the sharply effective answers made by the McKinley and Dingley Tariffs, which practically prohibited the export of their agricultural and animal products to the United States, cooled the ardour of Canadians towards reciprocity and threw them with increased diligence into the cultivation of their already rapidly expanding trade with Great Britain.

But other factors have entered into the question. The Great West of the United States has, since 1850, been developed with its immense production of cereals and cattle. Vast transport systems have brought these into quick and cheap connection with Eastern United States consumers, and the consequent competition has rendered these markets less valuable to Canadian farmers.

The impetus given to Canadian industrial life by the protective system adopted in 1878 has lead to a volume and diversification of manufactures, which supplies in part and is destined to supply more fully the home markets, and this inclines us to bar the way for easy competition to the increasing and over-abundant manufacturing capacity of the United States.

The Canadian transport system has entered upon a course of rapid and efficient development, and this development has taken on an east and west trend, looking to the stimulation of production throughout the whole Dominion and the carriage of Canadian products east and west for distribution, and, as far as exports are concerned, to the upbuilding of national ports.

The area and variety of profitable production has thus been immeasurably widened, and this, with the great revelation of natural resources and capabilities, undreamed of in the olden time, has materially changed the problem.

Instead of segregated sections, each in close natural affinity with the great cities of the United States contiguous thereto, there is now a vast and broad belt of united country, stretching across the Continent, in most parts well watered, fertile and easily cultivable, in other parts rich in lumber and minerals, already well served by parallel trunk lines of railway which are yearly throwing out their lateral feeders into every eligible

district, and with admirable water communications for many months in the year.

The increase in production has already been enormous and this is but the faint promise of future yield. Cities are springing up, marts of trade and commerce, full of enterprise and ambition. New thoughts are stirring, new ideals have been created and new hopes are cherished. To-day changed conditions and a new outlook confront and confound the advocates of old time reciprocity.

From 1867 till 1904 no election has taken place for the Federal Parliament in which reciprocity in some form was not a dominant factor. In 1891 it was practically the sole issue in the form of unrestricted exchange of commodities between Canada and the United States, and involving discrimination against the mother country. During the Federal elections just closed it was either not discussed, or if it were, it was by the way of condemnation rather than of approval. The main issue of the Grand Trunk Pacific was pressed by the Government on the ground that it was needed as a national road, designed to prevent the commerce of the Canadian West seeking an outlet through United States routes and ports. As a live issue it does not exist. I question if at present it can be galvanized into any decent semblance of activity. The most that is said in its favor is that if any move is to be made in that direction, it must come from the government of the United States, that the rôle of petitioner has been abandoned by Canada, and that even were an advance so made, the response thereto should be a very guarded one, and it is doubtful if any favorable response could be given to any proposition going beyond the field of natural products. Even as regards this, the question arises as to whether these

should not be preserved for finishing in Canada, to the end that their greatest values might be exported, and that skill and labor either developed within the country or attracted from abroad, should be employed in imparting the added values, in distributing and carrying the finished products, and in securing the vast incidental advantages for the enrichment and enlargement of our own country.

There is a growing indisposition to set the currents of trade by hard and fast treaties, lasting for a definite period and then subject to denunciation by a power which has different national aims and ambitions. The hold thus given to the more powerful participator, the confusion possible from an abrupt closing of the gates, and the consequent necessity for opening new avenues of trade at great trouble and expense create a situation fraught with menace and peril. There is a growing appreciation, too, that any setting of the currents of trade by virtue of tariff preferences between the members of the same Empire would be less liable to sudden change through caprice or hostile interest. The differences are patent between trusting your fortunes to the family or to outsiders, however respected and estimable these may be.

For the limited reciprocity that is possible it would seem that the better mechanism to be employed would be for each country to facilitate, by reductions or abolition of duties, the entry of what it desires from its neighbor. For instance, if the United States needs our wheat for its mills it can facilitate the imports by reducing or abolishing its duty thereon, just as Canada secures corn for food purposes by making United States corn free in her market.

Canada has also a deepening sense of the unfairness of present tariff legislation under which Canadian products are debarred by almost prohibitive rates from entering the United States, whilst over her far lower tariff United States products are poured into Canada.

The United States, as a market, is becoming every year less valuable to Canada. Of all agricultural and animal products which she could sell to the United States, in the face of severe home competition, she can sell far more to Great Britain, which has no home surplus to throw into the competition, but where there is instead a chronic deficiency. Her fish products the United States must, in a large measure, have for its enormous population, whilst the great preserves of her lumber stand to be needed to an extent which will, by and by, over-ride duties, owing to growing consumption combined with diminishing resources in the United States.

Leaving the field of natural products, the feeling is growing strongly in Canada, that her prosperity is wrapped up in peopling her comparatively empty, but vastly productive stretches, in the diversification and development of her industrial life, and that her true policy is to make up her own and imported raw resources by the employment of skill, and labor, and capital within her own borders, and thus increase her population, enlarge her home market, and enrich her people with the wealth thus produced.

The recent trek of United States farmers to her fertile fields, and the translation of United States industries to her towns and cities, with all the employment and production that results, have set the most ardent free traders thinking.

The national sentiment has become robust, and if we

are to persist, we feel that we must enter whole heartedly into the development and population of our immense areas. A reciprocity which would tend to make us dependent on the United States for our manufactured goods, to draw off our great natural products, to be finished there; to starve our great lines of railway and ocean ports, has no powerful claims upon a young, vigorous and hopeful race of nation builders.

In fine our feelings and our affiliations are for the Empire and thither are we drawn, ourselves a vast and vaster coming part thereof.

A few years more and reciprocity as our fathers understood it, will have reached the vanishing point in Canada.

DO RECIPROCALLY PREFERENTIAL TARIFFS TEND TOWARDS FREE TRADE?

A. W. FLUX

In this paper it is proposed to deal with some of the aspects of preferential tariffs and reciprocity in which Canada's relations to the mother country and to the United States do not form the most important or prominent feature. I fear I may detain you with commonplaces or with repetitions of what is familiar, especially in view of the recent volume on reciprocity in which Professor Laughlin and Mr. Parker Willis have so carefully examined that question, reaching results with which I am not disposed to attempt to quarrel. Even the trite and the commonplace may sometimes not be superfluous, however.

The commercial treaties of the last generation, in Europe at all events, have differed from those of former times in one feature of fundamental importance, in that the concessions, granted in each such treaty between one power and another, have, by the operation of the "most favored nation" clause, been extended to the entire group of nations bound by treaty to either of the contracting parties. The policy of "reciprocal preference" is in direct conflict with this practice, and expresses rather a revival of the practice of earlier centuries in the matter of trade treaties. So prominent a place in public interest has been taken by the preferential arrangements made, of late years, within the British Empire, and by the policy of reciprocity, as understood in the United States, meaning reciprocal concessions made between two countries by treaty, and not extended

to others by either of them, that it seems worth while to ask whither such a policy tends.

In a general way, though for vague and ill-defined reasons for the most part, there seems to be a belief that reciprocity is a kind of half-way house to free trade. That belief, I shall suggest, is hardly justified either by the logic of the case or the experience of the past. The reduction of the tariff of one country as against a second may be judged from either of two standpoints: namely, from the point of view of the advocates of tariff for revenue only, and from that of the believers in tariff for protection.

It need hardly be recalled to your thoughts that the revenue-tariff advocates would find the advantage afforded by lowering the tariff, or any particular item of it, not in the privilege conferred on other nations by permitting them a freer access to the protected market, but in the gain to the nation which relieved its industry from the pressure of the tax in question. The desirability of the reduction is, from this point of view, not dependent on reciprocal action by one or more other nations. If those other nations can be induced to remove yet more of the fetters which hamper industry, the gain is by so much the greater. If it were admitted that the reduction worked injury to the nation proposing it, compensation for that injury might be essential. But the free-trader, who accepts a tariff as a fiscal measure, and endures its evils as less than those of, say, an income tax, does not need to find other compensation than that to the revenue for reducing import duties.¹

¹Incidentally it may be recalled to mind that, if the rates of the tariff are not required by fiscal necessity to be such as develop the greatest possible revenue from any or all articles, it is desirable from the point of view of revenue that the rates be below, not above, the level proper for maximum yield. The need for greater revenue on emergency can then be more easily met by the process invariable followed in such a case, namely, raising the rates of duty.

The Canadian example (already referred to by Prof. Shortt) may serve as an illustration. The British preference, when originally carried through Parliament, was a measure of tariff reduction. The choice being between all-round reduction and a reduction specially affecting the mother country, the latter was chosen. I do not know that opponents of the preference base a case on the evils suffered by Canada through the retention of the full tariff rates on foreign goods. The advantage sought by the reduced rates of the preferential tariff was sought in benefits conferred on the Canadian consumer,¹ and in the encouragement given to the development of trade in a direction in which incidental benefits to Canada as an exporting country were looked for, and are believed to have been obtained. The belief is sedulously fostered by the protectionists that the advantages of the preference are enjoyed, not by Canada, but by England. It was not in that belief that the Fielding tariff was framed, unless I am greatly deceived. I do not deny that British manufacturers may benefit, and that Canadians may feel some satisfaction that British rather than, say, German manufacturers profit

¹ The following extracts from the speech of Mr. Fielding, when introducing the tariff on April 22nd, 1897, suggest the views stated, [*c.f.* Debates, House of Commons, Dominion of Canada, Session 1897. Vol. 1, at pages cited].

"The Liberal party, in its platform at the Ottawa Convention, declared itself to be in favor of a reduction of the tariff. That pledge we have fulfilled today by substantial reductions in our general tariff, and still further by the large reductions made in our reciprocal tariff." pp. 1133-4.

"And last, but not least, we give to the people the benefits of preferential trade with the mother country." p. 1135. Later in the same debate, Sir Richard Cartwright said (*c.f.* p. 1256).

"Lastly, Sir, and it is not the least important portion of our scheme, there is a reasonable chance of delivering Canada from the dead-alive condition in which Canada was until very lately."

by trade with Canada. This is, however, rather a pleasing incidental result than the primary object sought.

Turning now to the consideration of a special reduction of tariff as against one country in particular, from the standpoint of the believer in protection as a principle, how does the matter stand? Justification can be found for such reduction in either of the following cases: (i) where the reduction of duties by one country, A, on the goods imported from another country, B, affects only products in which B has a special disadvantage in relation to the markets of A. The preferential reduction may merely put B on the same level as all other countries in competing for so much of the import trade of A as A's interests permit to be open to foreign competition. This does not reduce the degree of protection afforded by the tariff, and may serve as a concession with which to purchase favors. But would any generous response be likely to be evoked by an arrangement which merely placed B on an equality with other nations? Does such equality, with rivals of established position and no insignificant strength, present an opening for trade sufficiently promising and extensive to be worth purchasing at any considerable sacrifice?

(ii) The second case is where the importing country cannot dispense with imported supplies of particular commodities. The country best able to supply its needs may, in such a case, perhaps, be favored with a gain to itself. Though the material for a bargain might be found under these conditions, the case for granting a special reduction of duty does not depend on the evocation of reciprocity. The advantage is found in the better access to the most desirable sources of supply. Perhaps, too, the revenue might gain more than if there were an all-round reduction of this item in the list of

duties. But, inasmuch as it may be contended that the source of supply which is most advantageously situated will be least in need of special favors, the level of the tariff may safely be fixed from considerations of revenue yield, or of the advantage to be gained from a supply of a desirable commodity on as cheap a basis as possible, in view of need for public revenue. In any case little promise of effective pressure for reciprocal favors is afforded if the other party to the bargain be so placed as to depend very little on securing the favor.

When proposals for reciprocity come to be considered, it is highly probable that the duties, the reduction of which is demanded by one country of another, will be precisely those which that other is most unwilling to reduce. If all are not in this category, some are tolerably certain to be, either on the one side or the other. If it appear that reciprocal concessions can be secured, which compensate for the reduced protection accorded, the arrangement has nothing about it to especially recommend it to the protectionist. The most characteristic of free-trade contentions is that the comparative lack of prosperity in one trade may be more than compensated by stimulus afforded specially to another or generally to a host of others. To grant that reciprocity may make preference advantageous, when, without reciprocity, it is injurious, is to concede the force of the economic condemnation of protection as a system. The protectionist cannot, and does not, advocate a kind and degree of reciprocity which adds to the freedom of trade, if he be consistent and logical. And the free-trader does not need the reciprocal concessions of another country to make a preferential reduction of duty worth instituting, if, from his point of view, it be worth instituting at all. Reciprocity as a condition of and compensation for

the reduction of tariff as between particular countries, the reduction not being extended to the outside world, that is to say, reciprocal preference, cannot, then, claim support on sound theoretical ground, either from free-trader or protectionist. The springs of action, are, however, found, as Professor Shortt has pointed out, in false theories as well as in sound ones. It may be more profitable, therefore, to turn from abstract considerations and proceed to consider some of the historical evidence bearing on the subject.

How does the matter stand when we look at it, not from the point of view of theoretical consistency, but from that of practical experience? Surely the principle of reciprocity has done great and effective service in securing the reduction of tariffs! Are we sure of this? Is not the opinion that it has done so, unless that opinion be carefully qualified, based on a superficial view and hasty interpretation of facts?

Look at the case already quoted, that of the Canadian preference to British goods. The tariff of 1897 would have had lower rates on a number of items, if the debates on the measure are a guide, but for the expectation that a treaty of reciprocity with the United States would be arranged in the near future, in view of which it was desirable to have something in hand on which to base a bargain. The expectation of exacting reciprocal concessions held the framers of the tariff back from proposing rates as low as the interest of their own nation called for.¹ The wave of free-trade enthusiasm has

¹ In the debate on the introduction of the tariff, among other references to the point we find the following: "if you make allowances for the special reservations which we have made for the purpose of enabling us to treat on fair terms with our American friends. . . ." (Speech of Sir Richard Cartwright. *Debates, etc.*, 1897. Vol. I. p. 1242).

largely died away, and Canada has failed to enjoy the benefit of those lower rates during eight years through waiting for a reciprocal arrangement. Reciprocity seems as distant a prospect now as when the Fielding tariff was adopted; in some ways more distant, since Canadians are less impressed with the idea that they stand to gain by reciprocity with the United States. Planning to lower tariffs through reciprocity—refusing to throw away the weapons with which concessions may be procured—has here distinctly deprived a free-trade campaign of part of its legitimate fruits. And this is no isolated case, but rather an illustration of what has taken place again and again, and is likely to recur. As long as free-traders permit their opponents to repeat the well-worn tactics, so long, in grasping at the shadow, they will miss the substance of their desires.²

Even in the classical case of the Cobden treaty between England and France in 1860, this view finds illustration. Of the reductions in the British tariff which the treaty conceded, we find Cobden writing to Bright: "We do not propose to reduce a duty, which on its own merits, ought not to have been dealt with long ago." Whether Gladstone would have carried through the tariff reform, embodied in his 1860 budget, had there been no French treaty, and no reciprocal concessions, is hard to say. It is probable that that measure of reform would have been carried, and at approximately the same date, on its own merits, even without the aid of the French negotiations. Such is unquestionably the impression conveyed by the

² See, for example, references in Mr. Fielding's speech in the Canadian House of Commons, on April 22, 1897 (*Debates, etc.*, 1897. Vol. I. pp. 1094-5), to the representations made by Sir Charles Tupper, in the Maritime Provinces, at the time of the introduction of the National Policy, that two years of the National Policy would suffice to secure reciprocity with the United States.

great financier's own words, as set forth in Mr. Morley's recent "Life." It was, perhaps, a fortunate accident that, in other countries as well as in England, the movement towards abolishing mediæval exclusiveness had proceeded far enough to enable concessions from their side to be secured in return for what looked like a price paid by England. But in regarding the English concessions, it must not be forgotten that they were not restricted to the nations which gave something in exchange for them. The sentence following that quoted above from a letter of Cobden to Bright reads: "We give no concessions to France which do not apply to all other nations." The spirit of such concessions is obvious, and is emphatically opposed to the spirit of concession of exclusive privileges to particular nations. That plan had been tried. Gladstone said: ¹ "I have been an active party to the various attempts under Sir Robert Peel's government to conclude such treaties, and was as far as possible removed from any disposition to the renewal of labor which was in itself so profitless, and which was dangerously near to a practical assertion of a false principle, namely, that the reductions of indirect

¹ Morley's "Life of Gladstone." Vol. II, p. 21. In 1844 Gladstone had defended the policy of endeavouring to secure reciprocity treaties, and had aided in defeating resolutions, introduced in the House of Commons by Mr. Ricardo, enunciating the doctrine "that the great object of relieving the commercial intercourse between this country and foreign nations from all injurious restrictions would be best promoted by regulating our own customs duties as might be most suitable to the financial and commercial interests of this country, without reference to the amount of duties which foreign powers might think it expedient for their own interest to levy on British goods," and urging that the diplomatic agents of the country should be instructed "not to enter into any negotiations with foreign powers which would make any contemplated alterations of the tariff of the United Kingdom contingent on the alterations of the tariffs of other countries." Cf. Annual Register, 1844.

taxation, permitted by fiscal considerations, are in themselves injurious to the country that makes them, and are only to be entertained when a compensation can be had for them." Had the attempts here referred to, to secure a commercial treaty with France, been successful, the reciprocity plan might be credited with assisting an important advance toward freer commercial conditions. But of those negotiations, looking to tariff treaties on the basis of reciprocity, Sir Robert Peel, speaking in the British House of Commons on January 27th, 1846, said: "Wearied with our long and unavailing efforts to enter into satisfactory commercial treaties with other nations, we have resolved at length to consult our own interests." And Mr. Gladstone's views in reference to the attempts to induce other countries to associate themselves with Great Britain in the reduction of tariff are expressed even more emphatically in the following passage: "In every case we failed. I am sorry to add my opinion that we did more than fail. The whole operation seemed to place us in a false position. Its tendency was to lead countries to regard with jealousy and suspicion as boons to foreigners, alterations in their tariffs, which, though doubtless of advantage to foreigners, would have been of far greater advantage to their own inhabitants."

Is not this view borne out by the subsequent history of European tariffs? England frankly reduced her tariff for her own benefit. Other nations reduced theirs only in response to reciprocal reductions, thus acting as if the reductions in each case benefited other nations in the main. As soon as a change in sentiment set in we find that reciprocity entirely failed to keep tariffs low. It is true that we have the double tariff, a general tariff and a conventional tariff, the latter granting lower duties to the nations bound by treaty in tariff matters,

or the maximum and minimum tariff, a less elastic form of practically the same thing. But the minimum or conventional schedules are not, in general, strikingly moderate in the rates they embody. The tendency, moreover, is for these most favorable rates to be steadily raised. The maximum or general tariff may be made prohibitive, as a means of compelling the acceptance of the immoderate though lower rates of the conventional or minimum tariff. The maximum rates are a kind of "big stick" with which to enforce the acceptance, under the name of "special favor," of something in itself undesirable. The fixing of the limits of conventional concession, in minimum-rate schedules, now becoming the general custom, affords no kind of guarantee that reciprocal concessions will approximate to freedom of commercial intercourse, but rather the contrary. The stimulus to reciprocal concession is evanescent in practice. The minimum rates are put high enough, speaking broadly, to meet the claims of the protectionist interests, and there is no kind of assurance that the securing of those rates will prove attractive to other nations. England cannot secure tariff concessions because, it is said, she has thrown away her weapons. But how effective have the weapons retained by the rest of Europe proved? Have they, for example, been effective enough to suggest that, as against either the United States or against Germany, Great Britain would have secured any substantial—indeed, any—reduction of rates below the levels actually granted to her? Two countries, with maximum and minimum tariffs, may say to each other: "Grant me your minimum schedule, or you shall not get mine." This imposes no restraint, apparently, on the increase of the rates of the minimum schedules, and the point is at last reached, at which it becomes

clear that the minimum of one country is conceived as not being worth buying at the price demanded,—namely, the grant of the other's minimum rates. The actual position of the negotiations between Germany and Austria appears to illustrate this, and to afford a fairly strong piece of evidence against the effectiveness of the retention of a tariff as a means of compelling others to abandon their tariffs. Fully persuaded that lowering their rates affords advantage, not so much to themselves as to their neighbors, the nations have proceeded in a fashion which reminds one of certain features of a popular American game,—each “raises” the other, and the “bluff” goes on till it eventuates in tariff wars from time to time. If we can imagine how much higher all-round the tariff might have been had England, too, been in the game, we can conceive of the extent of the service done to freedom of trade by the refusal of that country to abide by the “reciprocity” idea. It is true that Great Britain cannot initiate negotiations with other countries looking to mutual tariff reduction except in so far as this affects crown colonies. A result is that the points most important to Great Britain may fail to be raised. It will depend on the conclusion we form as to the extent to which other countries have been influenced, by the tariffs retained by their neighbors, to check the raising of duties, whether our estimate of the loss to Great Britain places that loss at a magnitude great enough to be worth avoiding at the necessary price, namely, the retention of duties not desired for other purposes and hurtful in themselves.

Another noteworthy case in which it certainly seems as if reciprocity did enforce freedom of intercourse is found in Huskisson's “Reciprocity of Duties” Act of

1823,¹ which equalized the charges, etc., on foreign and British shipping in British ports, on condition that the treatment was reciprocated. It must not be forgotten that pressure from outside, threats of retaliation unless reasonable freedom was instituted, had a good deal to do with this measure. The numerous treaties concluded under the provisions of this act are a tribute to the wisdom of its framer, and the obligations under which his countrymen were placed to that reformer. But an even greater tribute to Huskisson's foresight and sound common sense is found in the stimulus to England's shipping evidenced by the record of its growth. It was the need of avoiding retaliation, on the one hand, and on the other, of giving a stimulus to trade and industry which would react on shipping, which made the liberal policy worth while, and we need not attribute its benefits to the fact that no country enjoyed the privileges it conferred without reciprocating them. The fact that, in the dark ages of commercial policy, people could be bluffed into regarding as desirable only because reciprocated, a freedom which was, in truth, sufficiently desirable in itself, does not demonstrate the wisdom of choosing to-day the same line of action. Is it an adequate reason, for taking the worse line of action, that others will not join in the better? In some cases, doubtless, but not as a general principle. To take this course, not to refuse to take it, is what needs special justification on each occasion.

In 1854, when the British coasting trade was opened to world-wide competition, the power to exact reciprocal concessions was reserved.² But public opinion in 1854

¹ 4 Geo. IV, c. 77, and 5 Geo. IV, c. 1.

² "If it shall be made to appear to Her Majesty that British vessels are subject in any foreign country to any prohibitions or restrictions

was so much in advance of what it had been in 1823 that no waiting for reciprocity treaties or conventions was now necessary. The clause was never acted on, though reciprocal privileges were not granted, and are not granted to-day. The maintenance of freedom of shipping in British ports has rested on the belief that that freedom is, on the whole, to British advantage, in spite of that advantage being kept down by the failure of others to reciprocate. British advantage has not been sacrificed to the prejudices of other nations. Can it be alleged that the growth of the British mercantile marine discredits the policy? Is there any serious probability that an attitude of restriction on England's side would have extracted reciprocal privileges from the unwilling nations of Europe, or from the United States? Were England to have said to them, "Open your coasting trade to us or your ships shall be penalized in British ports," she must have excluded them from her coasting trade if they had not thought it wise to admit her to theirs.¹

The exclusion might have been a great disadvantage to them, but it would have been of some disadvantage to Britain, and she was not looking for opportunities to

as to the voyages in which they may engage, or as to the articles which they may import into or export from such country, it shall be lawful for Her Majesty (if she think fit) by Order in Council, to impose such prohibitions or restrictions upon the ships of such foreign country, either as to the voyages in which they may engage, or as to the articles which they may import into or export from any part of the United Kingdom, or of any British Possession in any part of the world, as Her Majesty may think fit, so as to place the ships of such country on as nearly as possible the same footing in British ports as that on which British ships are placed in the ports of such country." 16 and 17 Vict., c. 107.

¹ The actual experience in the matter of trade between the United States and the British West Indies during the years 1826-30 illustrates the point taken.

injure others, in the hope of reaping advantage from such injuries, indirectly, if not directly. It does not seem impossible that, in the future, the interests of shippers may appear no longer to require that British ship-owners should share with foreigners the trade between British ports, including under this designation ports of the Crown colonies and Eastern Dependencies of Britain, if not those of the self-governing colonies. The latter would be not unlikely to desire inclusion in any arrangement specially favoring British shipping in British ports. The revival of a provision of this Act of half a century ago would suffice for the purpose.¹

The only conditions in which reciprocity would be likely to tend towards freer commercial intercourse are those where a nation does not clearly appreciate the advantage of reducing its own tariff, while it is persuaded that reciprocal concessions are advantageous enough to outweigh the losses believed to be imposed on it by these reductions, and that they cannot be secured otherwise. The negotiations in such a case are reduced to a contest of wits, devoted, on each side, to forcing the other to reduce its tariff, while skillfully avoiding any important reduction in return. Is that situation a promising one for an agreement embodying real steps towards freedom? Is not the encouragement of the delusion that no reduction of tariff is worth making unless some reduction elsewhere can be secured in return a greater hindrance to tariff reduction than the actual achieve-

¹ The reciprocity clauses of the 1854 Act were repealed in 1876 by the Statute Laws Revision Act, 39 and 40 Vict., c. 36. It appears that the coasting trade of the United Kingdom was thrown open in the bill of 1849, as originally drafted, together with the foreign trade, but the clauses relating to the coasting trade were withdrawn, partly due to refusal of reciprocity by the United States. *cf.*, Leone Levi, *History of British Commerce*, p. 301.

ments of reciprocity treaties are a help to that end? Such was the opinion of Mr. Gladstone, and recent experience does little to dissuade from sharing in his opinion.

In Canada to-day, there is probably a wide-spread belief in reciprocity as an abstract principle, but so far as reciprocity in the concrete, *i.e.*, with the United States, is concerned, the situation illustrates preceding remarks. It is believed that the reductions of tariff likely to be conceded by the United States are reductions which it is sufficiently in the interest of the United States to make apart from any equivalent secured from Canada, while, of the reductions likely to be demanded in the Canadian tariff,—whose level is, broadly speaking, much below that of the United States tariff,¹—little is likely to appeal to Canadians as other than injurious to their country's present interests. Waiting for reciprocity simply means that reforming energy is pent up. Each side seeks to keep unchanged, as a weapon for a future fight, duties whose reduction would be advantageous to the other, practically ignoring the question of whether the present reduction might not be of advantage to itself.

As regards the preferential tariffs that have found a place in the customs régime of British Colonies, the spirit in which they are conceived serves to give point to preceding remarks. Canada, South Africa, and New Zea-

¹On Articles of food and animals the rates of duty charged in the United States average two and one-half times those charged in Canada; on manufactured articles for consumption the United States rates are fully twice the Canadian. These two groups yield about three-fifths of the customs revenue in each country. The average rates of duty on dutiable goods in the United States and Canada are about in the proportion of 9 to 5. Free goods comprise about 40 per cent. of Canadian imports, and about 43 per cent of United States imports.

land have instituted preferential tariffs applicable to British goods, and Australia is said to have the matter under consideration. The idea prevalent in the Australian Commonwealth, as to the lines of a possible preference, seems to be in accord with that expressed in the New Zealand preferential policy. This policy has been in effect for but a few months—too short a time to make reference to its results. As to the plan, it includes no reduction of duty, except in the case of tea, which is placed on the free list, instead of paying 2d per pound. The rest of the changes consist of additions to duties on certain classes of goods when imported from foreign countries. The duty on cement is doubled when imported from countries not granted the preferential rates. Of this commodity, all but two-thirds of 1 per cent. in value of the import in 1902 came from the British Dominions. Then follows a group of articles on which the duty is increased by 50 per cent. when imported from non-favored countries. Of these goods 70 per cent. in value were received from the British Dominions in 1902. A third group, selected from the free list, have a duty of 20 per cent. placed on them when imported from non-favored sources. Of these a fraction under 75 per cent. in value were received in 1902 from the British Dominions. The entire list includes ten millions of the fifty-five million dollars' value of imports into New Zealand in 1902. Of these \$2,780,000 were imported from foreign countries, forming 30 per cent. of the entire import from foreign countries. That there is no expectation of a substantial reduction in purchases from foreign countries may be inferred from the anticipation of an increase of revenue of \$350,000 to \$400,000 from the increased duties. Even British possessions will not receive the advantage of the preferential rates

unless they respond, by concessions to New Zealand involving a sacrifice of revenue of like amount to that estimated to be involved in refraining from imposing these sur-taxes on their goods. Power is taken to arrange like reciprocity treaties with foreign countries on the same terms. Perhaps the actual amount of goods subject to the new surtaxes may be greater than represented by the figures quoted, for the 1902 figures present, not countries of ultimate origin, but, in all probability, countries of immediate shipment. The criticism of opponents of the measure, that it was a measure of protection, not of preference, seems justified. The example of the Canadian surtax on German goods shows that some (at any rate apparent) transference of trade may be effected by means of increase of duties against non-preferred countries. Thus there may be some advantage to British producers, even though it be true that the change is one to higher duties on the whole. Should Australia adopt a similar plan, reciprocal preference between Australia and New Zealand would not involve any reduction of duties from the level at which they stood before the preferential plan was introduced, thus illustrating the position laid down in what precedes.

The South African preference is a real reduction of duties, amounting to 25 per cent. of duties generally, and the entire remission of duties which are at $2\frac{1}{2}$ per cent. ad valorem, on goods from non-preferred countries. The Canadian preference similarly involves the real reduction of duties, in spite of some preliminary adjustment of special schedules, making the actual reduction from previous rates less than the one-third at which the rebate of duty stands in general. But the prospect now held out is for a revision of the simple plan of a uniform fractional reduction of duties. A general and a

preference tariff, on the lines of the familiar maximum and minimum tariff plan, is foreshadowed. We cannot tell on what principles the minimum duties are to be assessed. The recent change in the duty on certain classes of woollens, hitherto and still rated at 35 per cent. in the general tariff, is not very promising for low minimum rates where these rates really encourage importation. In place of a preferential duty one-third less than the general rate of 35 per cent., we have now a preferential duty of 30 per cent. The general appearance of the figures of imports does not support the view that the growth in imports of these goods has been entirely due to the preference. Taking the seven complete years since the beginning of the preference in 1897-8, the proportions of the imports of these goods entered at preferential rates from Great Britain have been respectively 72.77, 71.55, 69.12, 72.34, 71.87, 73.08, 76.22 per cent. The latest year shows a sudden increase, due, perhaps, more to the German surtax than to the British preference. Omitting this year, for that reason, we find that the imports from non-preferred countries increased between 1899-1900¹ and 1902-3 by approximately 20 per cent. The imports under preference increased by nearly 45 per cent. These proportions are very nearly the same as for all dutiable woollens imported. The stimulus to imports due to the preference cannot be measured by the entire increase of imports, but rather by something like 55 per cent. of that increase. As it appears that the reduction of the preferential rebate is not checking the growth in imports, perhaps even this overestimates the effect. The goods on which the change in question has reduced the

¹ The preference was not limited to British imports till the end of July, 1898. Hence the figures of the first two years cannot be safely used in tracing the effect of the preference on British trade.

preference have been about seven-tenths of the woollens imported under preference, and something like one-fifth of all the goods from Great Britain affected by the preference.¹

¹ In view of the deputation to the Government of Canada on January 5, 1905, requesting the restoration of the old preferential duty on certain woollen goods, the following figures, showing, in greater detail than those given in the text, the imports of goods affected by the modified preference for the five years preceding the modification, may be of interest. They are shown in two sections :

(A.) Cassimeres, cloths, coatings, overcoatings and tweeds.

(B.) Felt cloth and fabrics, manufactures, wearing apparel and ready-made clothing, composed wholly or in part of wool, worsted, the hair of the alpaca, goat or other like animal, n. e. s.

For comparison there are stated also the figures of

(C.) Other dutiable woollens, comprising *inter alia*, blankets, carpets and yarns.

TOTAL IMPORTS INTO CANADA (ENTERED FOR CONSUMPTION) IN
THOUSANDS OF DOLLARS.

<i>Fiscal Year.</i>	<i>A.</i>	<i>B.</i>	<i>C.</i>	<i>Aggregate.</i>
1899-1900-----	2,714	4,351	2,737	9,802
1900- 01-----	3,198	4,102	2,644	9,944
1901- 02-----	3,595	4,382	2,970	10,947
1902- 03-----	4,716	4,965	3,881	13,562
1903- 04-----	5,347	5,621	4,191	15,159

OF THE ABOVE WERE ENTERED UNDER THE PREFERENTIAL TARIFF.

1899-1900-----	2,481	2,402	2,116	6,999
1900- 01-----	2,975	2,307	2,057	7,339
1901- 02-----	3,343	2,390	2,328	8,061
1902- 03-----	4,465	2,610	3,097	10,172
1903- 04-----	5,128	3,233	3,519	11,880

SHOWING THE FOLLOWING PERCENTAGES ENTERED AT PREFERENTIAL RATES :

1899-1900-----	91.4	55.2	77.3	71.4
1900- 01-----	93.0	56.2	77.8	73.8
1901- 02-----	92.9	54.5	78.4	73.6
1902- 03-----	94.7	52.6	79.8	75.0
1903- 04-----	95.9	57.5	84.0	78.3

Why the B group has been associated with the A group in the raising of the rate of duty under the preferential tariff, while the C group has been left unchanged, is not clear from the figures.

In view of the fact just detailed, and of the further fact that, although the reduction of the woollen preference was accompanied by some cases of increased preference, the latter affected articles of small relative importance, there is some justification for the feeling that a loss of no small part of the low-tariff effect of the preference is in sight. But, it will be said, surely this is due to the fact that the reciprocal feature is lacking. On that I would say that, if Canada were prevented from adjusting her tariff according to her own views of her own necessities, through contract engagements with the mother country, though she might be induced to keep some items of the tariff lower than they would be made in the absence of such engagements, that low tariff might be purchased at too high a price. As has been said by leading British statesmen: Freedom is greater than Free Trade.

But my point in adducing this illustration was this, that the most prominent note in the policy developed by British colonies, in their preferential tariff arrangements, has been the readiness to impose increased duties on foreign imports as a handicap to these as against British goods, not to make the entry of British goods easy. This is readily intelligible from protectionist communities, and, in insisting on it, I do not desire to undervalue the sentiment dictating the favors to the mother country. But, alongside this sentiment, in the main equally prominent, is the desire to institute a higher maximum schedule rather than a lower minimum of tariffs. Preference conducted on such a basis does little towards furthering freedom of trade. If, in order to purchase the concessions made by her colonies, Great Britain is to institute duties on foreign imports, which her other interests do not dictate to her, a net increase of obstacles to

trade, not a decrease, is in contemplation. The protectionist may possibly rejoice at the prospect. Not so the free-trader. Even were the ideal of "Free Trade within the Empire," within the range of practical politics, it would need clearer demonstration than has, as yet, been forthcoming, that the attainment of that end, combined with protection against all outside, would not add to the hindrances to British commerce, rather than subtract from them, and that, not merely in the present, but for a future long enough to carry us to the regions of vague speculation or pure prophecy.

The actual operation of the plan of reciprocal concession has not shown it as a serious check on a growing reliance on high duties. The trouble is the old one, that the protectionist nations of the world are constantly in the position of "giving too little and asking too much." If each of the parties to the negotiation is protectionist, the outcome is no substantial lowering of the barriers to free intercourse. If one of the parties believes in free trade, there is little, if any, need for the other to make concessions at all. Only if an unyielding adherence to protection is replaced by a willingness to moderate tariffs will there be prospect of reciprocity treaties which shall embody any substantial advance towards free trade. When embodied in a treaty, valid only for a limited term of years, and revocable on the usual short notice, these concessions are constantly in danger of being withdrawn. The fact that they are granted to foreigners tells against them everywhere and always. Since, to make them possible, some growth of free-trade sentiment is a pre-requisite, it is suggested that the embodiment of that sentiment in an unconditional revision, slight or thorough-going, according to the strength of the sentiment, of the tariff of the country where the

growth is manifested, would be the most effective use to make of the sentiment in question.

The history of the reciprocity treaties of the United States, and the rather considerable accumulation of treaties of the kind which have awaited action by the Senate so long that they must rather be considered as offers of favorable terms which have been rejected, than as manifesting a willingness on the part of the United States to soften the rigor of the tariff in exchange for a full equivalent secured in return, do not weaken in any degree the belief that the road to freer trade relations is not conspicuously easier or more certain via reciprocity treaties than via downright tariff revision. The too widespread belief that free trade is defensible only as a cosmopolitan policy needs to be dispelled, and the view that it is as a national policy that it calls for support substituted. What if we do confer benefits on others incidentally while seeking our own national advantage? Let us fix our attention on the gains to ourselves rather than on the gains to others. If that sounds sordid, it works out in more generous action than the plan of waiting till others are willing to join us in seeking the gain consequent on the removal of commercial restrictions. That gain is not unadulterated. In particular cases, the losses may outweigh the advantages. But if and wherever we believe the gain to outweigh the loss, from our own national standpoint, the best policy is to seize the gain at once, by reducing the duties which hinder natural development, either reducing all round, or in the trade with particular nations, as seems best.

Let me say with some emphasis, before concluding, that I am not arguing against preferential tariffs, but against the policy of limited reciprocal preference. If the force of public opinion is opposed to a general reduc-

tion of the tariff, but favors a reduction as against certain nations, rather than a reduction on special items, there is a genuine increase of freedom, the future development of which should depend, not on the sentiment of other communities, but rather on that of the nation concerned. What I am opposed to is that attitude which requires or induces the adoption or retention of a protective policy by other nations as a condition of favorable terms of commercial intercourse with ourselves.

DISCUSSION

ON RECIPROCITY AND PREFERENTIAL TARIFFS

H. PARKER WILLIS : In listening to the very significant papers just presented to the Association, there is one fact which stands out above others. This is the declining importance assigned to Reciprocity as a commercial expedient. It seems that the trend of the views expressed this afternoon is representative in a remarkable way of the drift of political and practical opinion the world over. At least two reasons why reciprocity is impossible and unsuitable as a commercial policy are being recognized.

For the past fifteen or twenty years tariff reformers have been more or less inclined to regard reciprocity as a means of practicable tariff reform. It has been felt by many persons that, if a beginning could be made with a few articles or schedules, it might be possible, by gradual extensions of the policy, to bring within its scope enough articles to constitute on the whole a very respectable approach to free trade conditions. Experience has shown, however, that it is no easier to secure a reduction of duty on a competitive article when such reduction is to carry with it a corresponding reduction in some foreign tariff, than to get the reduction when no such exchange is to take place. This amounts to saying that free trade opinion, backed by the self-interest of one group of manufacturers or other exporters, is of little if any more weight than when independently exerted. In such cases, the added support gained by tariff revisers from the self-interest of exporters is more than offset by the opposition of the protected manufac-

turers in the foreign country who conceive that their interests are affected by the proposed reductions. It makes no difference whether the conflict of interests here referred to occurs when the provisions of the reciprocity treaties themselves are being shaped, or whether it is manifested when the agreements come up for discussion before some legislative body. The difficulties are there—and they are ineradicable.

In practice it is, and must continue to be, impossible to make reciprocity by special treaty effective except where one country grants reductions on some article which it does not produce in return for similar reductions granted by a foreign country upon articles which it does not produce, but the former does. As there is no reason, from the protective standpoint, for the existence of duties on non-competitive goods except as a basis for negotiation; and as revenue considerations could in no case be expected to give way to reciprocity negotiations, tariff reformers have very generally come to the conclusion that reciprocity is not an idea with which they can have any dealings. This conclusion is even strengthened when reciprocity assumes the form of maximum and minimum tariff proposals. In such tariff schemes, the minimum tariff is invariably put so high as to afford full protection to competing industries, the maximum remaining simply as a general threat as to what will be done if the tariff of some foreign country does not assume a desired shape. Thus, from the standpoint of the tariff reformer, reciprocity is either a farce or an impossibility and in neither light does it appeal to him.

During the past decade, also, reciprocity has been taken up by some minds among protectionists as a possible mode of getting away with ease and dignity from the extreme protectionist position. They have not felt

willing to confess the need of tariff revision, although they have not been able to conceal from themselves the fact that conditions were rapidly becoming such as to call for a change which was almost certain to be demanded by the consuming public. This was substantially the state of mind in which President McKinley found himself during the latter days of his life, according to those who were closest to him. Such protectionists have, however, invariably found themselves confronted with precisely the same difficulties as tariff reformers, though in a more aggravated shape, as soon as they attempted to put their notions into practice. Where the effort has been made merely to lop off protection that has become superfluous through changes in prices, while retaining full and complete protection, foreign producers have speedily seen through the sham, and have declined to be hoodwinked. Where any real reduction of duties below the prohibitive point has been attempted, the difficulty has been greater by far than the mere reduction of the tariff without reference to any action on the part of foreign countries, while the surroundings and accompaniments of the movement have been such as to deprive it of the support of tariff reformers or free traders. The result has been that protectionists disposed toward temporizing or reform have quickly found that what seemed a short and easy road to change was more difficult than the familiar path. The growing recognition by tariff reformers of the fraudulent character of this kind of reciprocity has deprived politicians of the support they expected to get from their critics, while it has wholly failed to quiet the latter.

For these two reasons therefore—namely, that reciprocity does not satisfy the logical sense of the tariff reformer and fails to meet the needs of the practical poli-

tician, the policy has rapidly declined in favor with both sides of the tariff controversy, or rather has never been able to attain the commanding position predicted for it. What is true of the United States is likewise true *mutatis mutandis* of foreign countries.

The fact that reciprocity has maintained a place in political platforms, and has done some service as a local issue in the United States, besides acting as the basis for the scheme of an imperial tariff federation for England and her colonies, may seem hard to explain in view of the fact just alleged that the doctrine serves the purposes of neither the one side nor the other in the tariff controversy. Closer analysis shows that no such inconsistency as here appears really exists.

Mr. Shortt has very clearly described the willingness of the British manufacturer to sacrifice the British consumer of agricultural products, while he has also suggested the readiness of Canadian producers to sacrifice the home consumer of their products through higher protection against foreign, non-British manufactures, nominally designed to compensate England for exclusive privileges to Canadian grain growers. This has been precisely the situation in the United States. The fact is that the protective controversy now seems to be entering upon a new stage in its development. Until recently, the control of the home market was the dominating conception of protectionists everywhere. But, with the growth of the trust movement and the development of the export-price system, there has grown up a distinct feeling among a class of our manufacturers that the home market is not enough, and that they must gain control of foreign markets for their goods in addition. In other words, the protectionists, having gained all the advantage over the consumer that they could ask, are

now showing signs of disintegration into groups, each of which would like to sell out the interests of the others. This is what is often called reciprocity, and it is from such small groups of producers, sectional in character—whether by chance of location or by interest—that the outcry for reciprocity comes and is maintained.

In this connection, an interesting outgrowth of the reciprocity situation is to be noted. Mr. Shortt has very pointedly commented upon the possible friction growing out of trade preferences founded upon sentimental instead of business considerations. The fact is that while it is to the interest of any country as a whole to have its commercial relations founded upon a business, rather than a sentimental basis, it is the latter basis only, upon which appeals so manifestly ill-founded as the reciprocity arguments can succeed. As Mr. Hobson has very clearly pointed out, in his work on Imperialism, the colonial policy, with preferential tariffs, discriminating duties, etc., etc., is very unprofitable to the mother country, but is highly remunerative to the special interests both at home and in the colonies which are affected by it. Were such interests to appear, boldly avowing their true motives in demanding colonial federation, preferential tariffs, reciprocity, etc., the public would not give ear for an instant. It is only when marked by appeals to what Mr. Shortt happily terms "sentimental considerations" that the policy of tariff discrimination in this form will be even considered by the average man, for it has neither the merits of complete protection nor those of free trade or tariff liberalization. The spirit of militancy and the argument for economic self-sufficiency invoked in behalf of the tariff policy itself is likewise called into play to apologize for discriminations between producers, efforts at colonial

preference, etc. Reciprocity, standing on its own basis, as negotiated between two countries of equal standing, has little or no chance of success. No set of politicians is, under such conditions, able very long to hoodwink both foreigners and a large section of their own community into a serious attitude toward the question. When the proposed policy becomes confused with that of Imperialism, real danger to the consuming classes and to the nation as a whole is incurred.

GEORGE M. FISK: My reply to the very interesting and able papers which have just been read is, I realize, no reply at all. There is little in them to which exception may be taken. In the few minutes allowed me, therefore, I shall present a few thoughts of my own relating to the subject at hand, although it is quite probable that, while in agreement in the main with the positions taken in the principal papers, the previous speakers will not readily agree with the standpoint here maintained.

The speech of Mr. Joseph Chamberlain at Birmingham on May 15, 1903, advocating closer economic and political relations between Great Britain and her colonies, by means of preferential tariff rates, has precipitated a very acrimonious discussion upon the general fiscal policy of the British Empire. The agitation is reflected not only in the daily press, but also in pamphlet and periodical literature, in books, in speeches in and out of parliament, and in public and private industrial investigations. Although centered in England, the discussion has assumed world-wide proportions, and covers all conceivable standpoints. Writers and speakers are attempting to fortell the effects of the proposed plan upon Great Britain, upon her colonies, upon foreign countries, or upon the policy of English free trade and

colonial protection. The economic, political, historical and theoretical phases of the subject are all considered. Some are interested in immediate effects, while others dwell upon distant future results. Much of the literature on the subject lacks the scientific spirit, as opinions are largely preconceived. Thus, for example, Professor Cunningham recently began a discussion of the question with these words: "I also wish to introduce myself as a convinced free-trader; I loyally accept the position of Adam Smith; I am quite clear as to the principle being economically sound, and I am in hopes that it will sooner or later be accepted by all commercial countries." (*Economic Review*, January, 1904.) English writers and speakers are terribly afraid of the term "protection." Champions of the preferential idea are prone to introduce themselves as "opposed to protection." Mr. Chamberlain, for example, in his Birmingham speech, said: "I am perfectly certain that I am not a protectionist," and yet he tells us that protectionist countries are prospering at the expense of Great Britain, and the latter must imitate the example of such countries as the United States and Germany if she would continue to prosper. His scheme contemplates import duties upon both food and manufactured products, some duties, such as those on flour and wine, being particularly high in order to protect the native miller and the colonial wine grower.

It is interesting to note the development of colonial policies. During the three centuries following the great discoveries, the philosophy and the policy upon which colonization was based was that colonies existed largely for the benefit of the mother country. The revolt of the American colonies from Great Britain, Spain and Portugal during the latter part of the eighteenth

century and the first half of the nineteenth century, together with the development of democracy during the same period engendered a philosophy that colonies were valuable to the mother country only during their early period when population was sparse and when resources consisted of raw material and food products. When population increased and manufactures developed and the colonies became less economically dependent upon the mother country, it was assumed that political separation would follow. The development of international competition in recent years has tended toward a revival of colonial interest.

In Great Britain this is shown, among other ways, in the organization of the "Imperial Federation League," in 1884, and the "British Empire League," in 1895, the latter date being contemporaneous with the appointment of Mr. Chamberlain as colonial secretary. The proposition for the mother country to tax herself for the benefit of the colonies seems to me to be another step in the general trend of colonial politics during the past few decades. Concessions have been granted the colonies from time to time while the burdens have been retained by the mother country, until now we seem to have arrived at the general conclusion that the mother country exists for the benefit of the colonies rather than that the latter are valuable only as they economically benefit the former. This statement may be only a partial truth, but to the extent that it is the truth, it is opposed to imperial federation. The colonies economically are an increasing expense to Great Britain and she pays these expenses, in a large measure, by her trade with foreign countries which constitutes 80 per cent. of her total import trade and over 60 per cent. of the total value of her exports. The realization that the indus-

trial and commercial possibilities of Great Britain, compared with other countries like the United States, do not warrant increasing expenditures, leads to the proposal of a scheme which if carried out would—if the consensus of English opinion is to be taken—mean an added burden. And yet in spite of this increased burden, men like Professor W. J. Ashley make statements similar to the following: "That the Empire will split up within the next few decades if things go on as they are, I no more doubt than I doubt the sun's rising to-morrow. I cannot conceive that history can have any lesson at all for us if this is not one of them. . . . The only likely way that I can see to bind the empire together is a preferential trade policy." (*Economic Journal*, March 4, 1904.)

Now, understanding that the present plan of preferential tariffs means that the import duties of the various countries of the British Empire should be lower for inter-imperial than for international trade, the eventual ideal being free trade within the empire and little or no trade with foreign countries, that is a self-sustaining empire—an ideal that few believe realizable, I desire to state briefly my own point of view, not as to immediate effects, but as to more distant future results. If we go back in history a few hundred years to the period of feudalism, we find both a political and economic system local in character. Wants were few and easily satisfied. These local centres were self-sustaining. From that time to the present the general trend, both political and economic has been in the direction of centralization. The economic phase finds expression in the modern trust, while the political side realizes itself in the growth of national and imperial federation. There are many factors more or less essential for the successful develop-

ment of the latter, the most important being contiguous territory, interstate or domestic free trade, racial affiliations, such as similarity in language, law and general ideas, economic interdependence, ability of the federated territory to supply, in a large measure, its own wants in order to effectuate the basal idea of "self-sufficiency," and finally the character of a people, this being largely determined by climate—nations of the temperate zone dominating those of the arctic or tropical. It is not meant that all these conditions are a *sine qua non* to federation, but that their existence tends toward that complete federation which seems to be the dream of the British imperial federationists. While some of these conditions are found in common in Great Britain and her self-governing colonies, taking the British Empire, in its entirety all these factors are partially or completely lacking.

In this connection I desire to quote Professor C. F. Bastable who, in discussing various successful federations in a recent number of the *Economic Journal* (Dec., 1902, p. 507), said: "All the cases just mentioned possess one important feature in common. The areas so wrought together were adjacent. Their inclusion in a single customs region necessarily reduced the expense of guarding the frontier and relieved trade from inconvenient restrictions. This is in truth the great merit of a customs union; it makes trade completely free within the field of its operation, while it does not, or need not, involve any great obstruction to intercourse with places outside its territory. . . . There is little need for insisting on the fact that no union of this kind is possible for the British Empire. . . . Fiscal systems must be adapted to the countries in which they are employed, and it is this principle of relativity that decisively condemns any

attempt to unite the several members of the British Empire divided, as they are, from each other by the diameter of the globe. The tax forms most effective in India are not those proper in the United Kingdom, nor could either be applied to Australia or South Africa." The proper conditions for the realization of the federal ideal are found on the North American continent, centered between 35° and 50° north latitude; in South America between 20° and 40° south latitude; in South Africa, in Eurasia, dominated in the East by Russia, in the West by Germany, and flanked by two island kingdoms or empires, Great Britain on the West with no opportunities for contiguous expansion, and Japan on the East with indefinite possibilities of island expansion or of political amalgamation with the yellow continental races, either movement bringing her eventually in collision with Australia, whose natural expansion is Northward.

There are some who prognosticate future political world domination more on racial bases and reduce the number of world powers to two, one under Anglo-Saxon and the other under Slav leadership, a possible third power being represented by the so-called "yellow races." Not to get too far from home, let us centre our attentions upon conditions and tendencies on the North American continent. When the American colonies severed their political relations with Great Britain, they confederated upon the basis of individual state control of commerce, but it soon proved unworkable, and they were obliged to federate upon the basis of interstate free trade. Upon this basis the United States has expanded until now, all things considered, she represents the greatest absolute free trade area in the world. Her expansion has been along East and West lines—abundant cheap lands, rich in agricultural possibilities and in minerals,

an effective governmental administration and productive labor and capital being the favoring conditions. The Pacific has been reached, a period of more intense internal development has arrived and a new movement of capital and population along North and South lines has begun. Railway lines are being projected from the Arctic to the Tropics; American capital by the hundreds of millions is pouring into Mexico and British North America, and American citizens by the tens of thousands are making permanent settlements in Western Canada, 47,000 out of a total of 122,000 settlers coming from the States in 1903. This condition will powerfully affect political sentiment in Canada. Although this movement is a belated one, owing largely to political causes, it is nevertheless a natural one—natural because favored by all the conditions previously referred to as being more or less essential for the development of the federal ideal.

To mention only the geographical situation, I can do no better than to quote from a very recent work on "Canada and the Empire" by two English writers, with a preface by Lord Rosebery: "First in the west there is British Columbia, a beautiful country which is both fertile and rich in minerals and is by nature far more closely connected with the Pacific States of the Union than with the rest of Canada. . . . The Prairie country is separated from the prairie country of the United States simply by a geographical line and is cut off from Eastern Canada by several hundred miles of barren and unproductive country on the North shore of Lake Superior. . . . This (Eastern) part of Canada again should, if geographical conditions alone had play, be more closely allied with the Eastern States of the Union than with western Canada." If British Imperial

Federation is to realize itself anywhere it ought to be with England's most advanced self governing colony—Canada, but we find that in spite of high tariffs between the latter and the United States, American-Canadian economic dependence is increasing at a greater rate than that of Anglo-Canadian, although the latter is favored by preferential tariff rates as regards Canadian imports from Great Britain while her exports to the mother country pay no tariff duties. In 1854, 51 per cent of Canada's foreign trade was with the mother country while in 1903 the percentage was only 39. For the same dates, Canada's trade with the United States was 34 and 44 per cent. respectively. Comparing the foreign commerce of Canada in 1896—just preceding the inauguration of her preferential scheme—with 1903, we find that her trade with Great Britain shows an increase of 104 per cent while her trade with the United States increased 112 per cent. As regards imports, those from the mother country increased 78 per cent, those from the United States 140 per cent. Professor Flux, in the *Economic Journal* for December, 1903 (p. 173), gives two explanations for the relatively greater increase in the trade of Canada with the United States than with Great Britain: "The one is that the goods which are most suitable to the Canadian market are, to a large extent, identical with those which are suitable to the markets of the United States. The British manufacturer or merchant cannot, or does not, so fully understand the needs of the Canadian trade as does the American. Add to this the convenience of sources of supply which are so much more accessible. . . . and one can begin to understand that it needs no little effort on the part of the merchants of the motherland, if the advantage of the preferential tariff is not to be lost in large

degree. A second point is that the resources of Canada are attracting capital from the United States. . . . The country which supplies the brains and funds for such work not unnaturally supplies the material means for carrying out these schemes of development." English imperial federation is a beautiful ideal and appeals very strongly to sentiment—at least to Anglo-Saxon sentiment. I wish it might be realized and the world would probably be better thereby. For reasons, however, suggested in the foregoing I do not think it can be effected at least under the political leadership of Great Britain. Anglo-Saxon federation may, and I believe will, realize itself in North America, South Africa, Australia and possibly elsewhere, and common political, economic and social bonds will probably in the future, as in the past, bring more or less unity of action on the part of the English speaking peoples. In North America almost every factor—contiguous territory, racial affiliation, economic interdependence, climate—all point toward economic and political amalgamation *of the people* of this continent.

S. J. McLEAN: In Canada preferential tariffs and reciprocal arrangements in regard to trade have been interestingly inter-related. Both have connected themselves with particular phases of the economic conditions of that country and the ascendancy of one has been at the expense of the other. In the early part of the nineteenth century, under a thorough going system of preferential duties, Swedish timber found its way to Quebec, and thence, through the connivance of the officials, it was shipped to England as Canadian timber. So great being the preference to the Canadian timber that after deducting the cost of this roundabout journey a consid-

erable profit would remain. To further the use of the Canadian canal system, grain from the Western States, exported to England by the Canadian waterways, was given the same preferential treatment as Canadian grain.

It was when the abolition of these preferential arrangements by England seemed to threaten the entire overthrow of Canadian trade that the movement for closer trade arrangements between Canada and the United States through reciprocal trade arrangements began. And it is noteworthy that it was in New England that the movement originated.

The trade carried on between Canada and the United States under the Reciprocity Treaty was for the most part simply one of convenience. The termination of the treaty seriously affected the business interests of Canada. The railways running through Western Ontario suffered a great falling off in revenues. There lingered for years a desire for reciprocity. The National Policy, which was introduced in 1878, had as one avowed phase the hope that through pressure reciprocity with the United States could be obtained. The statement was made that there would be either reciprocity of trade or reciprocity of tariffs.

Although the Liberal party, while in opposition, favored reciprocity with the United States this was in part at least due to the natural antagonism of their position to the Conservatives who had become less and less interested in reciprocity. Since 1896 the policy of the Liberal party in regard to protection has been one of enlightened opportunism. The policy which has been pursued has, on the whole, been productive of results. The modifications of tariff have been coincident with wider changes. In all except population Canada is in about the same position as the Northwestern States

were in 1870. There is the same movement of population, the same railroad expansion, and the same westward movement of capital.

While from time to time great interest in reciprocity has been shown in Canada, to-day I am within the facts in saying that barely a corporal's guard could be elected to the Canadian Parliament on a reciprocity platform.

As soon as a preference was given by Canada to England the question arose as to what Canadians received in return. It was alleged that the favorable sentiment created in England by reducing the tariff would increase the demand for Canadian goods. There has been an increased demand for various lines of Canadian goods, but a very considerable part of it must be attributed to the very energetic advertising policy carried on by some of the departments of the Canadian government.

As regards the relations of Canada to Great Britain under the proposed mutual preference, many difficulties appear. In Canada any change in the tariff which would lead to the manufacturers' interests being harrassed would be unjustifiable. Looking at the matter from the standpoint of Canada, any changes in the tariff which would lead to Canadian manufactured products being supplanted by English manufactured products are not in the interest of Canada. It has already been shown that the colonies in general will not accept the suggestion at one time made by the Hon. Joseph Chamberlain that they should simply concern themselves with the production of raw materials.

Whatever may be done in regard to preference, Canada will insist on going on developing its manufacturing interests. The great West is to be opened up, and Canada will insist that the manufactured products demanded in the West shall come from Canadian facto-

ries—in the first place, from the factories of the East ; later from factories established in the West.

From the standpoint of the effect on England of the adoption of preferential policy, difficulties also appear. It is alleged that Canada is able to produce large supplies of agricultural products which will be in demand in England. Admitting this, it is none the less apparent that if at present the policy of preference were adopted by England, if England were to depend to a great extent upon supplies of agricultural products from Canada, there would not be that immediate adequate response in supply which the demands of the consuming public in England would necessitate. In other words, we would have whatever supply was given at a considerable increase in cost.

While the aspirations of many who desire to see a tariff wall around the empire—an empire which would have for a bulwark a tariff—are perhaps commendable from the standpoint of the ideal ; from the standpoint of the practical, all one can say is that preference should have applied to it the Scotch verdict, “ not proven.”

THE INCLOSURE MOVEMENT IN ENGLAND

EDWIN F. GAY

The disappearance of the open-field or three-field system of agriculture is one of the capital facts of English economic history. Trim hedges and compact fields have, for the most part, replaced the wide commons and the scattered, intermixed strips of the old husbandry once practiced over a large part of England. The pilgrim to Shakespeare's country may, in the green closes still trace the undulating ridges and balks of the system of cultivation, which, we are told, was rapidly vanishing in his day. This transformation has sometimes been regarded as a simple phenomenon of agricultural progress and explanations of its causes and results have been readily forthcoming. The desire for improved farming, landlord rapacity and a consequent social catastrophe form the usual elements in the picture of the "precipitate change" of the sixteenth century. There the movement is supposed to have rested until again in the eighteenth century a similar agrarian revolution, animated only by a somewhat different agricultural intent, carried the change to its conclusion. A more intimate acquaintance with the facts, however, shows that this is not an entirely accurate account of what was in reality a complex and continuous process. It was not merely an alteration of agricultural technique, nor was it, on the other hand, a series of spasmodic, cataclysmal upheavals, overwhelming an unfortunate peasantry with each successive convulsion. We have to deal with a gradual, steadily progressing transition, which stretched over more than four centuries, and in its course raised

difficult problems of social adjustment to shifting economic conditions. Both as to causes and effects we have to investigate the resultant of complicated and conflicting forces, the operation of which, veiled to contemporaries, we cannot, with our inadequate evidence, pretend fully to discover. This bundle of questions which we call the Inclosure Movement touched, directly and indirectly, many sides of the national life, political, military and social as well as merely economic. On its psychical side it was one manifestation of that heightened sense of personality which we know as the individualism of the Renaissance and Reformation. Of a subject so wide and so ramified only a few of the salient features may here be indicated.

At the outset, a rather obvious distinction must be made between two types of inclosure, differing as to the nature of the land hedged in for private use, and at times, as to its agricultural destination. First, in point of time, was the inclosure of the waste or common lands, subject to varying proprietary rights of the crown and manorial lords, and of villagers enjoying common of pasture and of wood. It is not necessary in this connection to deal with the thorny questions involved in the early history of these rights. It suffices for the present to recall that appropriations of waste land are as old as English agrarian history, and that over a long period new settlements, new field-lands, were being carved from the waste. In some regions these new fields were apparently from the beginning inclosed, in others they lay open in a communally organized cultivation. The first legislative check to undue encroachment on the common waste for the extension of tillage, pasture or private deer-park, came with the statute of Merton. How far this thirteenth century legislation was needed

and how far it was effective it would not be easy to say. Certain it is, however, that the abuses which the central power aimed to restrain were of long subsequent continuance. Lords of manors inclosed, so also did the small men, nibbling their clearings into the forest. The work of reclamation proceeded slowly. Nevertheless it added its quota to the popular irritation against inclosures which was rising in the sixteenth century. Contests over common rights produced frequent local riots; village was arrayed against village, as well as against the lord; much grist was brought to the legal mill at Westminster. It was resistance to this type of inclosure which animated Ket's rebellion, but beyond reaffirming the statute of Merton neither Tudor nor Stuart interposed a staying hand. In the eighteenth century, indeed already in the seventeenth century, the tempo of the movement was greatly quickened; marshes and fens were drained and inclosed, the downs of the South, the wolds of the East and North, commons everywhere were brought under cultivation in inclosures. Great tracts were thus added both to the arable and to the pasture lands of England. This work has not yet come fully to an end. The Commons Preservation Society is to-day battling in the English courts.

While the first type of inclosure was running its long course, another form came into greater prominence. The attack upon the arable open fields seems to have taken its definitive beginning early in the fifteenth century, although in the unsettled years following the plague of the preceding century there is evidence of some occasional resort to pasture-farming. Once under way the progress of this type of inclosure was like the other, slow but continuous. The scattered strips in the open fields were gradually exchanged, withdrawn

from the common husbandry, consolidated or severalled, and inclosed with ditch and hedge. This process varied greatly both in the area of land affected and in the completeness of execution, from the mere engrossing of a few small holdings to the wholesale clearance of an entire village for sheep-farming on a large scale. As a rule the change was associated with a reduction in the number of tenants, though the displacement of population was doubtless less when arable farming was continued on the enlarged or engrossed holding than when, as more frequently happened, the land released from the bonds of the ancient, cumbersome agricultural system was converted into permanent pasture. This, which the contemporaries of the sixteenth and seventeenth century designated as a depopulating inclosure, was the especial subject of complaint and of repeated legislative interference. The leisurely appropriation of the commons excited less general alarm. It had been proceeding for a longer time and over a much wider area but it was no such direct attack on the long established order of things as the newer inclosure of the open fields with its disquieting evictions. The limitation of pasturage rights by inclosure of waste might, to be sure, decrease the fertility of the dependent arable lands and thus insidiously undermine the traditional husbandry. But the agricultural and social effects of such inclosures were not so obvious and dramatic as that of the open fields. It is therefore the depopulating inclosure which has always claimed the chief attention. Unfortunately, however, a too uncritical acceptance of the extravagant statements of sixteenth century pamphlets and preambles of statutes has led to an exaggerated estimate of the extent of the inclosure movement during the Tudor period. New

material made accessible in recent years enables a juster and more dispassionate view to be taken.¹

A careful examination of the reports of the successive government inquiries during the sixteenth and early seventeenth centuries yields some suggestive conclusions, which, without claiming the accuracy made possible by modern statistical methods, nevertheless find confirmation from other sources, from the literary evidence, used with discrimination, from the records of inclosure cases before the various courts and from certain considerations which will be later urged. The fact must, in the first place, be emphasized that considerable areas of England were not exposed to attack, since they had apparently been inclosed from the time of their settlement and had therefore never known the open-field system. Besides this initial limitation the evidence clearly indicates a further restriction, namely, that the movement was mainly confined to the midland counties. And even here, in the centre of England, the disintegration of the open-field system proceeded very gradually and sporadically. The number of sweeping clearances, with the conversion of whole village areas to sheep-farms, though portentous to the excited sixteenth century imagination, does not appear in reality to have been alarmingly large. But in the affected districts small inclosures and farmhold consolidations were fairly numerous. The movement during the seventeenth century does not seem to have altered much in character, except that inclosures of larger area by agreement, ratified by a decree in Chancery, appear more frequently.

¹ I have summarized more fully the results of my study of the contemporary evidence as to the extent of the inclosure movement during this period in the *Quarterly Journal of Economics*, vol. 17, pp. 576-597, (Aug. 1903), and in the *Transactions of the Royal Historical Society*, N. S., vol. 18, pp. 195-244. (1904).

In the eighteenth century the more binding confirmation by act of Parliament was substituted for the Chancery decree, and in the general fever for agricultural improvement the change which had so long been gathering momentum was carried forward at a greatly accelerated pace. By the middle of the nineteenth century the transformation had been effected, except in a few laggard open-field villages where the outworn system still survived.

The Agrarian Revolution, then, if it be reduced to its just proportions, was in its earlier and longer stages comparable to some slow-moving geological process; its action was erosive rather than volcanic. This conception of its character must also limit its supposed ruthlessness both of execution and of social results. As a matter of fact, representatives of nearly all the classes of rural society were to some extent concerned in it, small husbandmen, copyholders, large farmers, lay and ecclesiastical landlords, the old nobility as well as the new commercial aristocracy. Where wholesale clearances of population were made, there was often, doubtless, cruel injustice. But even though operations on so wide a scale were comparatively rare, the smaller inclosures and consolidations meant in many cases an irksome change in lifelong habits, in dwelling place and vocation, in some cases the suffering of underhand persecution or overt oppression. Poets complained that under the surface of the Elizabethan golden age a civil war was raging between landlord and tenant. A landlord might oust his tenants-at-will, he might stretch a point to secure the forfeiture of copyholds, he might revive forgotten parchment rights, he might harass a freeholder with suits at law, he might cajole, browbeat, overawe. Such abuses of wealth and power undoubtedly occurred,

and violation of law sometimes accompanied the violation of custom and right. All this belongs to the traditional portrait of the oppressive Tudor land-lord.

But the other side of the medal is too often overlooked, the side which shows the portrait of the obstinate, pugnacious English peasant, formed by centuries of feudal society, with a character which combined many sturdy, admirable qualities with a large admixture of suspicion, cunning and deceit. The landlord exercised by no means the monopoly of illicit encroachment; he too had his grievances. He was enmeshed by the customs of an age that was passing away. The social ideals, the whole content of the life of his class was changing with the alteration in methods of warfare, the growing centralization of government, the increasing refinement of taste, the rising prices. He no longer wanted retinue, but rent. And when in the struggle to meet a steadily advancing scale of expenditure he turned to his chief source of income, he found himself faced by customary land tenures, by rents traditionally fixed, and by tenants whose outcry resounded odiously in high places if he ventured to lay finger on those customs and rents: tenants who had no scruples on occasion to perjure themselves in the fabrication of usage. If the father, by express grant or careless acquiescence, had yielded an inch, the tenants of the son took an ell. The situation, which to the landowner may well have seemed intolerable, is illustrated by a recently published case from Northamptonshire. Sir Thomas Tresham, one of the leading Elizabethan recusants, heavily fined for his fidelity to his Catholic faith and in hard straits for money, desired to reduce from twelve to eight the number of farmholds upon one of his manors and to demand for them an increased rent. But his son reminded him that when the

like was attempted upon one of his neighboring manors "there was not one tenant that would stay in the town to dwell upon improved rents," and "you could not remove all the tenants without much clamor."¹ If, as in this instance, the tenants would not accept enlarged farms at higher rents—and the raising of rent was probably quite justifiable—then the landlord had to choose between surrender to the obstinate husbandmen and their dispossession despite public clamor, between an inadequate, uneconomic rent and sheep-farming. So far as concerned the relation of landlord and tenant, such dispossession could be accomplished in a perfectly legal manner, and in a large number of cases was, I believe, actually so accomplished. The demesne lands could be inclosed; the numerous copyholds for life or lives were by escheat or forfeiture reverting to the lord and could be kept in hand without regranting, indeed, all kinds of copyhold were only slowly emerging from a precarious state; freeholds could be bought in from time to time; a patient landlord could lay his plans and ultimately his hands would be free. And there were cool and farsighted as well as some harsh and impatient landlords. That even when the landowner was clearly acting within the law, his action was often felt, by sufferers and on-lookers to be unfair or unjust, may not be denied, but in an age when all innovation, the most necessary adjustment to changing conditions, was regarded with aversion, the outraged feelings of contemporaries cannot be taken as an infallible guide in forming our judgment.

I have said that the usual direction of this change in

¹ Hist. MSS. Com., Various Collections, Vol. 3, p. 122 (1904). The manor referred to by the younger Tresham was Haselbeech, where, according to the Inquisition of Depopulation of 1607, Sir Thomas Tresham had in 1596 inclosed and converted to pasture the "whole lordship," some 1650 acres.

the midland counties, at any rate for the larger inclosures, was from open-field arable to sheep-farming pasture. This had its sufficient reason. The statements of progressive agricultural experts of the period, like Tusser and Norden, are emphatic in condemning the disadvantages of the open-field husbandry, its clogging routine, its constant bickering, its wastefulness, perhaps its slow exhaustion of the soil, its check to all individual initiative. To the landlord sheep-farming had especial attractions. Not only did he thereby rid himself of the fetters of the traditional agricultural system, but he secured greater ease of estate management and above all the possibility of higher rents. The price which he or his grazier tenant could obtain for wool was perhaps not high, but at any rate, it was at first relatively favorable as compared with that of grain; and when later, in the course of the seventeenth century, the balance of prices became redressed in favor of grain, wool-growing still retained for the midland agriculturist important permanent advantages, for it remained a product easily transportable, not perishable, and readily marketable. When we add, as time wore on, the prospect of freedom from the burden of poor relief and from the proximity of unpleasant neighbors, there would seem to have been almost irresistible inducements for the inception and spread of the inclosure movement. Why, then, did it not sweep rapidly to its goal; how shall we explain its creeping and gradual progress?

Some of the obstacles to a rapid development which first suggest themselves are discovered on closer examination to have had but little efficiency as checks; others, hitherto less emphasized, seem to have exercised a more deterrent influence. Take the hostile inclosure

legislation first of all. The Tudor government had military, fiscal and social grounds for protecting its population of small husbandmen. It was bent on preserving internal peace. It threw up one legislative dyke after another to resist the tide of innovation. Every recurring season of dearth reinforced the outcry against inclosures, which were erroneously held responsible by the public for distress due to deeper and unrecognized causes. The government, anxious to be paternal, would thereupon procure statutes *ad faciendum populum* from a complaisant Parliament, would issue strenuous proclamations, or in the last extremity would fall back on commissions of inquiry, the expedient of all perplexed administrations. But too much weight must not be given to these measures. They may have checked in some small degree, but they were impotent to stem the current of change. A Parliament of interested country gentlemen placed the execution of its anti-inclosure acts in the hands of overburdened justices of the peace, themselves often inclosers, or left the law to the tender mercies of bribable informers. It is a significant fact that the fall of the two statesmen who in the sixteenth century seriously attempted to put down inclosures, Wolsey and Somerset, was to a very appreciable extent due to the animosity this reforming zeal aroused among the English gentry, the real governing class of the country.

Apart from these two sincere but short-lived efforts, little was done to give legislative prohibitions the sting of enforcement. A somewhat stronger restraining influence may have been exerted by public opinion and class opinion. To be called an incloser and an oppressor of the poor was distasteful to men of the older school. Lord Ellesmere ordered that in Star Chamber interrog-

atories noblemen were not to be asked if they were in closers any more than others were to be asked if they were thieves, in order to cast discredit and reproach upon them. The generous virtues of knighthood still tended to persist as caste ideals. Anything that savored of gain, of trade, was in theory for the English gentleman, as for the Japanese samurai, long an ignoble thing. This feeling gave point to the numerous complaints of decaying hospitality, of the increasing avarice of "lordes which are shepardes." But if social ideals were slow to change, agricultural custom offered an even stronger resistance. The manorial system, the traditional husbandry, old habits, old relations and methods of thought were too deeply rooted to wither away at the first touch of expediency. The braving of public opinion and the breaking of the "cake of custom" required a toughness of fibre and keenness of edge, the Renaissance temper, which was at first the property of the more forceful individuals rather than of a class. And it was not simply the inertia of custom that had to be overcome; it was the active opposition of a tenacious peasantry. Moreover sheep-farming on a large scale demanded the investment of capital and the undertaking of risks—due, for example, to the prevalence of sheep-rot and other distempers—at a time when capital and the entrepreneur spirit were only in process of formation. And there remained a most important underlying fact, of which contemporaries were only too frequently reminded by repeated local dearths, that it was neither safe nor profitable for any section to narrow unduly its grain-growing area. The internal grain trade, to be sure, was extending, the market was widening, the economic unit was enlarging its bounds, but with primitive means of transportation,

deficient organization and technique, a national economy could only be of slow and gradual development. Well into the seventeenth century the grain trade was limited at emergencies by county restrictions and prohibitions. Under these circumstances any intense local specialization of industry, such as exclusive grass-farming, could but follow *pari passu* the deliberate advance of the general economic growth of the country.

But if we must insist on reducing the magnitude of the inclosure movement and on realizing the limitations and consequences of the narrow economic unit, we must also emphasize the continuity of development. Grass-farming, at first mainly for the production of wool, later with the increase of the urban population for that of meat, continued to a late date to be the chief aim of inclosure in the Midlands. In this region there is little evidence of the system whereby grain and grass alternated, each for its brief span of years, the so-called convertible husbandry, which forms so important a link in Roscher's generalization as to the stages of agricultural progress. Marshall, most acute of agricultural observers, could remark at the close of the eighteenth century that "a mighty turf was the Midlander's idol." And his testimony does not stand alone. It was the maritime counties, with their easier access to water transportation that offered the most favorable field for an intensive arable farming. Here was the ancient home of the convertible husbandry, and it was no accident which gave to the still more intensive system of crop rotation the name of "Norfolk husbandry." But a large portion of the maritime region, in the South-east, Southwest and West, belonged to the old inclosed country where the methods of settlement and cultivation differed radically from those of the open-field country,

and where the history of agricultural change does not, therefore, belong to the history of the inclosure movement. From this distinction between the maritime and the Midland counties, with a continuity of development peculiar to each, it follows that a differentiation often made between the inclosures of the sixteenth and those of the eighteenth century,—the earlier for sheep-farming, the later for an improved arable cultivation,—must be accepted only with reservations. The eighteenth century, it is true, witnessed a great extension of arable farming on that form of inclosure which subjugated the waste lands. But at the same time the inclosure of the open fields was proceeding on a wide scale, and this, especially in the Midlands, still frequently involved an extension of pasture-farming.

A juster differentiation of the two periods of inclosure should recognize not simply the agricultural characteristics of the movement but also the differing social effects. The results of the earlier inclosure period if a social balance be struck, were rather beneficial than disastrous. The initial stages, so far as they went, assisted in the creation of a strong and socially healthful agricultural middle class. But on the contrary the final and more sweeping phase contributed to the destruction of this same class. On this phenomenon, that the same movement, at different periods, with a varying intensity and with changed social and economic concomitants, could contribute to such divergent results, we may not here enlarge. The inclosure movement as a whole was a necessity and an undeniable economic benefit, but it was at the cost of a certain amount of social dislocation. It need not be assumed, however, that the same social price was paid at each stage of its progress, nor that the

inclosures were the only agency which finally destroyed the agricultural middle class and sapped England's vitality. This social transformation was caused by a wider complex of forces of which the inclosure movement formed only a part, yet a part that must be thoroughly studied if we are to understand either the history of agriculture or the history of social classes in England.

AN ECONOMIC HISTORY OF THE UNITED STATES ¹

CARROLL D. WRIGHT

Seven years ago to-morrow, and five days before his death, Gen. Francis A. Walker honored me by outlining to me verbally a projected work relating to the economic conditions of the United States. His purpose was to treat these conditions from the settlement of the country to the present time. Really, his syllabus comprehended an economic history of the United States since the adoption of the Federal Constitution, and he, of all men, was the one to carry the ambitious proposition to completion and to success. He was to deliver a course of lectures before the Lowell Institute based on this work, and hoped ultimately to develop the lectures into a book which should give clearly the main facts relating to the social and economic condition of the people of our country.

After General Walker's death it seemed to me that some one should take up the work proposed by him, but the inspiration he gave me did not seem to gain ground with others, for as the matter was considered it seemed to be too vast a work for one man to undertake. General Walker's proposed work was to be limited to one volume, and necessarily it could be no more than a very general history of economic development since the foundation of the Government. As time went on it seemed that in order to make the work what it should be—based not only upon such matter as existed, but upon the results of original research—there needed to be ex-

¹ An address delivered before the joint session of the American Economic and American Historical Association at Chicago, December 30, 1904, by Carroll D. Wright.

pended a large sum of money and a corps of investigators and writers employed. This carried it entirely away from the possibility of any one man making the effort. Such a work did not attract publishers, and the lifetime of any one writer was all too short to see the work completed.

When, however, the Carnegie Institution of Washington was organized and it fell to my lot to be one of the trustees of the Institution, I felt that the time had arrived when steps could be taken not only to carry out the purpose outlined by General Walker, but to extend his contemplated work to a degree that would warrant the expenditure of a sufficient amount of money by the institution.

In shaping the work of the Institution advisory committees were appointed to pass upon different subjects and recommend lines of investigation to be undertaken by it. Among these committees was an advisory committee on economics, consisting of Professor Farnam of Yale, Professor Clark of Columbia, and myself. This committee considered the matter at its first meeting without reaching a definite conclusion or discussing any particular lines of economic research. Subsequently the committee found no difficulty in making a recommendation to the Institution, for without further consultation each member brought in an independent memorandum of what he thought was best to be done, and on comparison it was found that all were in favor of an economic history. The report of this committee forms the initial step, so far as positive recommendation is concerned, in securing an allotment of funds for economic research. I therefore give the report in full, so far as the work recommended is concerned :

To the Board of Trustees of the Carnegie Institution :

GENTLEMEN—The committee appointed to report upon plans for economic research are of the opinion that, among the numerous topics in economics, sociology, and public law which might be interesting and useful to study, none are at the present time more promising than those which are suggested by the economic and legislative experience of our States. This experience presents such diversities and the matter to be studied is so vast that it is almost impossible for an isolated investigator to deal thoroughly with even a very limited phase of it. The government offices are obviously not in a position to treat it with the freedom demanded by science. The Carnegie Institution is, therefore, both on account of the funds at its command and on account of its power of enlisting the coöperation of scholars throughout the country, in a position of peculiar advantage with respect to this kind of work, and is able to direct a series of investigations of inestimable value, which, but for its assistance, might not be undertaken for many years.

Among the many topics which fall within this general field we may specify :

(1) Social legislation of the states, which should be critically examined.

(2) The labor movement.

(3) The industrial development of the states.

(4) State and local taxation and finance.

(5) The state regulation of corporations.

The thorough, scientific presentation of these and other allied topics would constitute a monumental economic history of the United States and occupy a place in economic literature hitherto unfilled.

The committee also recommended what seemed at the time an adequate sum to be appropriated provisionally for at least five years, believing, as it expressed itself, that during that time valuable results could be produced. The recommendation was promptly and unanimously adopted by the Executive Committee and

by the Board of Trustees and the active work of organization began.

In order to secure the coöperation of the members of the American Economic Association, a circular was addressed to the individual members of the Council of that Association, asking their suggestions as to men best adapted to carry on the work of the various divisions necessary to attain a fairly complete history of the economic development of the country. It is interesting to know that the suggestions of the Council were, with one or two exceptions, adopted and the gentlemen recommended placed in charge of the various divisions.

After conference with the friends of the movement to secure the materials of an economic history, and with the gentlemen suggested to take part in the actual work of investigation and authorship, it was decided that it was impossible to carry on the work successfully, and to the satisfaction of the economists of the country for the appropriation originally recommended. The matter was therefore brought again to the attention of the Board of Trustees of the Carnegie Institution of Washington, with a recommendation that the annual appropriation or allotment for the economic history be doubled. This recommendation was adopted without argument and by unanimous vote.

The Executive Committee, acting under this authorization from the Board of Trustees, then created the Department of Economics and Sociology of the Carnegie Institution of Washington. A very full report was made to the Board outlining the general work contemplated, the result being that the Department of Economics and Sociology of the Institution was made to consist of eleven divisions. These divisions, together

with the names of the gentlemen in charge, are as follows :

1. Population and Immigration.—Prof. Walter F. Willcox, Cornell University, Ithaca, N. Y.
2. Agriculture and Forestry, including Public Domain and Irrigation.—Pres't. Kenyon L. Butterfield, Rhode Island College of Agriculture and Mechanic Arts, Kingston, R. I.
3. Mining.—Mr. Edward W. Parker, Geological Survey, Washington, D. C.
4. Manufactures.—Hon. S. N. D. North, Census Office, Washington, D. C. (Now in charge of Mr. Carroll D. Wright).
5. Transportation.—Prof. W. Z. Ripley, Harvard University, Cambridge, Mass. (Now in charge of Prof. B. H. Meyer, University of Wisconsin, Madison Wis.)
6. Domestic and Foreign Commerce.—Prof. Emory R. Johnson, University of Pennsylvania, Philadelphia, Pa.
7. Money and Banking.—Prof. Davis R. Dewey, Institute of Technology, Boston, Mass.
8. The Labor Movement.—Carroll D. Wright, Clark College, Worcester, Mass., and Prof. H. W. Farnam, Yale University, New Haven, Conn.
9. Industrial Organization.—Prof. J. W. Jenks, Cornell University, Ithaca, N. Y.
10. Social Legislation, including Provident Institutions, Insurance, Poor Laws, etc.—Prof. Henry W. Farnam, 43 Hillhouse Ave., New Haven, Ct.
11. Federal and State Finance, including Taxation.—Prof. Henry B. Gardner, 54 Stimson Ave., Providence, R. I.

At the New Orleans meeting of the American Economic Association the Council adopted the following resolution :

Resolved, That the Council of the American Economic Association desires to express its cordial recognition of the liberal action of the Carnegie Institution in provid-

ing for research in American economic history, and tenders its hearty coöperation in the same as opportunity may arise.

It took some time for the Department of Economics and Sociology to get into thorough working order. A great deal of labor was performed in outlining the work and in considering the various difficulties and methods connected therewith, for all the great departments of economic history have not been worked out extensively; only fragmentary historical features and statistical data are at the command of economists and historians.

The idea of this investigation for the purpose of ultimately preparing an economic history is to secure, wherever possible, original data that have never been published, and that will unfold and develop all the various lines undertaken. Each collaborator furnished a syllabus of his proposed work, and these syllabi gave ample proof of the complete understanding of the collaborators of the scope of the projected undertaking. It was felt by all that the work should go beyond mere history, and should recognize the sociological results of economic development. It is appropriate that the historians of the country should not only take an interested part in this great work, but should be consulted with reference to original matter and the general construction of the history, although, in the main, it must necessarily be an economic work.

In this connection it may be of interest to you all to know that the collaborators have decided—and this plan has been approved by the Executive Committee of the Institution—that publications based upon the material collected under the direction of the Department of Economics and Sociology shall be permitted, suitable acknowledgment of such privilege being made, of

course. Such a plan will enable the investigators engaged in the work of original research to use the material collected by them in the preparation of monographs, memoirs, or theses, which, if their work proves satisfactory, they will be allowed to publish in such form or in such way as may be deemed advisable or agreeable to them, always reserving the right to the Carnegie Institution to use any or all of the original material in the construction of the final work of the history.

The question may now be asked with propriety: Of what is this great work to consist? The syllabi of the various collaborators fully answer this question, and at the expense of some dry details the general features outlined by the different collaborators must be given:

1.—Population and Immigration.

Under population there will be a study of the growth of population as a whole and in the various parts of the country since 1790, with such data and general facts as to the routes and tendency of the growth of population as may be obtained during the colonial period. This study, of course, involves that of urban and rural population, and the composition of the population at different periods and in different regions, with especial reference to the proportion of persons of money-earning age. There will also be included under this head careful studies of specific populations, like the Indian, Mongolian, and the negro; the progress of elementary education, as shown by population statistics; an analysis of the occupations under which the population subsists, and, of course, vital statistics of the population. The tenure of homes and various other economic and sociological elements pertaining to the whole general movement of population will be covered.

Under population immigration finds its natural classification, but this will be extended to an analysis of the migration of native population; the growth of facilities for trans-oceanic migration; the effect of State and Federal legislation upon immigration, and the vexed question of the influence of immigration upon the increase of population, upon the laboring classes, upon the labor union, and upon socialistic movements, while the special questions of German, Irish, English, and all other racial features of immigration will be comprehended under the general title of "population and immigration."

2.—*History and Status of the Economic and Social Relations of the Agricultural Industry of the United States.*

Nothing can be more important than the history and growth of agriculture, the basic industry of our country, and the whole subject will be dealt with on a very general basis adequate to it. Under this head will be treated the development of agriculture as a self-sustaining industry; the development of a commercial agriculture; the division of labor; large versus small farms; the economics of agricultural machinery; the pliability and complexity of the business; the relation of agriculture to capitalistic organization, to the labor propaganda and to other industries. The agricultural geography of the United States will comprehend soil, climate, weather, fertility, natural enemies to agriculture, etc.

Under the agricultural market, facts will be secured as to the nature and description of markets, prices, mechanism of the agricultural market, and its development. The whole subject of the transportation of agricultural products, farm management, etc., will receive careful and exhaustive attention, while specific leading agricul-

tural industries will form a valuable chapter of the work. The political relations of the agricultural industry—that is, the laws and land policy of the United States—and the relation of agriculture to tariff laws, financial legislation, taxation, etc., and the whole subject of government aid will be discussed.

Under the title of “Agricultural Population,” the history will consider the movements necessary for the settlement of the country; social condition; modern means of communication; social status of the agricultural laborer; the education of rural people; the rural church; farmers’ organizations; and many other features which must necessarily be the subject of original inquiry.

3.—*History of the Development of the Mining Industry.*

This history will cover the period from the earliest operations in mining to the present time, comprehending statistics, chronology of events, the application of mechanical appliances, the effect of labor-saving machinery on the development of mining industries, a general treatment of all the various improvements in smelting and refining, and a description of mineral products in detail.

As an instance of what may be expected in treating mechanical appliances in different branches of the mining industry all the devices applicable to the several classes of mining will be comprehended. Those inside the mines cover compressed air, steam and electric drills and pumps, mechanical haulage, drainage, hoisting and winding machinery; the evolution from man or horse power to water, steam, compressed air, oil and gas engines, and finally to electricity. All the devices that are used above ground will in the same way receive

attention in relation to their influence on the economic development of mining.

Under this general subject mineral fertilizers, chemical minerals, building material, rare earths, new elements, and all other mineral substances will receive full and proper attention.

4.—*Manufactures.*

The treatment of manufactures will cover the conditions and progress of mechanical and manufacturing industries in the several colonies during the period prior to the American Revolution, with an account of the industries transplanted from Europe and the industries indigenous to this country; the legislation of the British Parliament and regulations of the British Board of Trade antagonistic to the development of manufactures in this country; the genesis, administration, and effects of the enactments of the several colonies for the purpose of developing home industry; the incentive to manufacturing enterprise, and the comparative consumption of domestic and foreign manufactures during the Revolution.

As a cognate subject in close relation to the development of manufactures, the collaborator in charge of this division will treat of the natural resources of the country and their development, as shown by agricultural resources, reciprocal relation of agriculture and manufactures, mineral resources, forests, and fisheries, while national characteristics, in their economic influence on manufactures, will receive full attention.

Of course, under manufactures there will be a careful investigation relative to the utilization of power, the relation of wars to the development of American manufactures, the development of the factory system, the in-

fluence of legislation, labor conditions, transportation facilities, the different forms of capital, the economic relation of patents to the development of American manufactures, the localization of industries, and the influence of panics and depressions. There will also be a series of studies relating to special industries, comprehending the great industries that really make our country a manufacturing nation.

5.—*History of Transportation in the United States.*

The chronological history of transportation will deal with primitive conditions, the era of canals and railway origins, the growth of different systems and of through traffic, State and national regulations, railway rates, consolidation, railway finance, railway operation, systems of public control, railway labor, electric and rapid transit, lake transportation, etc. All these studies will be dealt with by periods and proper groupings, and in a way to make the history of transportation clear, continuous, and comprehensive.

6.—*Domestic and Foreign Commerce.*

The economic influence of domestic and foreign commerce on the development of the country will be shown through a history of the American merchant marine from its beginning to the present, including maritime legislation; a study of ocean transportation; a history of American foreign trade during the colonial and constitutional periods of the trade areas of the world at different periods of American history, and of the commerce between the areas in America and those in other parts of the world.

This history will also show the organization and administration of commerce, including the internal

organization and management of international trade, and the relation of the Federal, State, and municipal governments to commerce.

Subsidiary to this general history there will be a treatment of the organization and activities of the consular service of the United States; of American coast-wise commerce, its history, legislation relating to it, and routes and lines of vessels; and of American fisheries since the beginning of the seventeenth century.

7.—*Money and Banking.*

In the history of money and banking emphasis will be laid upon the use of monetary media and credit institutions as factors in the development of industry and commerce. Hitherto this aspect of money and banking has been neglected. Metallic money has been considered chiefly with regard to its serviceability as a standard of value, the issue of treasury notes has been treated as a branch of finance, and banking institutions have been studied as corporations abusing the privilege of note issue, and consequently requiring public control. Not only is it necessary to weave together the several histories which have already been published dealing with the subjects of coinage, treasury notes, and banks, but it is highly desirable that investigation be made of the influence of these monetary tools and instruments upon the economic life of the people and the way in which they have contributed to its social welfare.

From the standpoint of an economic history of the people of the United States, the subject of coinage should be sharply detached from other topics, as banking and paper money. We have as yet no one history which treats, within a single compass, of the experience of the United States with the several varieties of monetary and

credit agencies and instruments. There is a necessity for supplementing the political aspects of banking by studies of the daily work of the bank in normal industrial life, and of considering the relation of banking capital, deposits, and loans to the population.

The distribution of banking institutions in different sections of the United States, including national, state, private banks, trust companies, and savings banks, in their relation to the increase of population and to the growth of different industries, as agriculture, manufacturing, commerce, railway development, etc., requires investigation. So many other things, like the ratio of capital and circulation to the various elements of the population; the amount of loans and deposits; the relation of currency to crop gathering; the cost of banking; the earnings of banks; a history of the rate of interest, of clearing-house institutions, of trust companies, of savings banks, of the increased use of checks, private and certified, will receive full and careful attention as movements or elements of economic development.

8.—*The Labor Movement.*

That part of the economic history devoted to the labor movement will treat of the elements or phases of trade unions, including their history, development, constitutions, methods, membership, etc. It will also comprehend a topical analysis of all labor laws of the United States and the decisions of the courts interpreting them. Of course the whole range of subjects under strikes, lockouts, injunctions, conspiracy, boycotts, intimidations, will be given full historical treatment. The subject of employers' liability, compensation for accidents, workmen's insurance, and relief funds, under whatever

form they are constituted, including provident associations, pensions, etc., etc., will receive attention.

The rights of labor under common and statute law, the hours of labor, wages, cost of living, women's work, child labor, prison labor, the regulation and restriction of output, the history and development of conciliation and arbitration, profit-sharing, coöperation, stock distribution, housing conditions, sanitary improvements, betterments, etc., and, in fact, all those points which make up the great labor question of the day will receive full and adequate treatment.

9.—*Industrial Organization.*

Under this title there will be a brief study of business organizations in Europe during the period of American colonization, with the purpose of showing the sources of similar institutions in America and the changes which their transference to the new world has brought about. The subject will also comprehend the development of business, law, and organization in the colonies, taking up such important subjects as partnerships, road companies, laws affecting business organization of all kinds; and this, of course, will lead to the study of the development of business, law, and organization during the national period, including the influence of the post-office, the telegraph and telephone, canals, turnpikes, railroads, etc., as well as the effect on business organization of certain political changes and the direct interference by the State in industry, as exemplified by special grants to corporations, especially in the earlier stages of their development, and the gradual substitution of general laws; the interference of national, state, and local governments in industrial affairs in the state itself undertaking certain business

functions. Naturally, this branch of the economic history will deal with certain periods of speculation and industrial depression. Of course, modern industrial combinations or trusts will be treated as to their origin, development, and the various legal forms of the manufacturing combinations, with full reasons for their adoption, and naturally also, the effect of these combinations upon prices, wages, etc., as well as their influence upon financiering, banks, trust companies, insurance companies, etc. These studies will be made by States or groups of States under similar industrial conditions, and will be followed by a close study of federal partnerships, corporations, combinations, etc., and the effect of such legislation. All these studies can be very readily grouped topically so that such monographs may be written on the various subjects in connection with the growth of business organizations.

10.—*Social Legislation of the United States.*

The economic history of a country deals with the people who inhabit it and with their environment. The latter includes, on the one hand, the physical or material, and on the other, the legal or institutional, surroundings under the influence of which the population lives. Of the great body of law of a people, the larger part affects at best indirectly and remotely its economic and social life, and it is clear that in a modern democratic country like the United States the social structure is based almost entirely upon economic functions rather than upon race, birth, religion, or military rank. We have employers and employed, landlords and tenants, farmers and manufacturers, merchants and carriers. Each of these groups has, for the time being, interests which may come into conflict with those of other groups,

and we have laws designed to regulate the relations of one group to another, and thus to affect the structure of society. This is a vast subject, for the aim of social legislation to regulate directly or indirectly all the various interests, with the view of ultimately influencing the distribution of the product and the burden of production, is a vital matter.

Under social legislation there will be treated the status of the laborer, conditions of labor, disputes under the labor contract, risks of labor, and self-help, while the land policy of the government, homestead and exemption laws, protection of urban tenants, the encouragement of savings, the protection of the borrower, and other equally important features will be studied, and wherever necessary, made the subject of original research.

II.—*Federal and State Finance.*

Much work has been done on various aspects of national finance, and the subject, as a whole, has recently been ably treated. Considerable has also been done in the field of colonial finance. Very little attention, however, has been paid to State and local finance since 1789. The attempt will be made in this study to present a view of the different aspects of our financial history, national, state, and local, since 1789, as a whole. To accomplish this it will be necessary to institute original investigations in almost every State.

The plan includes an account of the relation between the development of revenue systems and of the growth and character of public expenditures on the one hand, and the character of the political system and the development of social and economic conditions on the other. There will also be a discussion of the working of the

more important forms of taxation, while the financial aspects of internal improvements and of public lands, the history of public borrowing, and the development of financial administration will receive careful attention.

Bibliography of Economic Works.

The committee in charge of this branch of our work propose to arrange a bibliography which shall be of practical and positive service to students. It will not be, as most bibliographies are, simply a list of titles, but will be descriptive and point out the particular value or scope of each work, so that a student will know by examining the bibliography just what he desires for his especial needs.

The foregoing outline, which is very brief compared with the full syllabi furnished by the collaborators, must suffice as a general indication of the scope and character of the proposed economic history of the United States. To give the syllabi in full would expand this paper to such a degree that it could not be presented on this occasion; nor would the full statement enable the members of these associations to discuss the whole project so well as does the condensation given.

You have undoubtedly noticed, as I have discussed the general features under each of the divisions of the history, that there is apparently, and perhaps really, some overlapping of work; that in the divisions of manufactures, transportation, industrial organization, social organization, and perhaps the labor movement, there are features in common. All these matters are clearly understood by the collaborators, and wherever it is found that one has collected material that would be useful to another, exchanges will be made, while conferences will be held from time to time in order to

secure uniformity and continuity of presentation without repetition. Of course, for the purpose of illustration, the facts given in one part of the work may be used in another part, but to this there is no great objection.

The great fault of collaborated works is well known. Each part has an individuality distinct from every other part, while the manner and method of treatment often vary throughout. The aim will be, through conferences of collaborators and of the heads of different divisions, whenever necessary, to avoid this weakness of collaborated works.

At the present time about seventy-five men, working under competent supervision, are employed in this undertaking, and the prospect is that another year there will be double this number at work. The progress up to the present time has been gratifying in large degree. The real work has been under way only a few months, but that practically indicates the positive success of the undertaking.

The size of the work cannot be foretold. It will be kept within all reasonable bounds, but nothing of value will be sacrificed for the sake of producing a brief work. It may consist of eight, or ten, or twelve, or more volumes, and it will be printed and published as rapidly as the parts are completed. You can readily understand, however, that so comprehensive a work will require several years in order to perfect it and bring it before the public.

The opportunity for graduate students to engage in original research is offered as a part of our plan. These young men will be given an experience of the utmost value in their training and development. They will secure some standing by their connection with this work.

So wherever college and university professors find in their groups a graduate student who is not only capable of undertaking but willing to undertake work in collecting materials for an economic history, information of that fact will be thankfully received.

Members of the American Economic Association understand quite fully what has been done and what is being done. They are interested not only in the economic point of view, but also in the historic elements of the work under consideration. Members of the Historical Association are also interested in economic branches of history, and the historian recognizes, better perhaps than our collaborators, the deficiencies in certain fields of any work on history. Their assistance, therefore, in filling these gaps and in suggesting topics which need special study would be of great importance in prosecuting our work. Historians and economists must be interested in everything that relates to history, and in everything and in every undertaking that will result in the contribution of original materials to those already in existence; for it should be remembered that the real important work of the Department of Economics and Sociology of the Carnegie Institution is a great collection of materials which will be available for the historian if any one desires to write a uniform history, for in order to be a history the work will require a unity of thought which only single authorship can give.

It must not be understood for a moment that there is to be no more historical work in these several fields I have outlined, after our collaborators have finished, or that all that is necessary to be done in these several departments will be done. The questions may be asked: Is it necessary now for historical students to give any more consideration to the subject of the land grants or

to certain branches of work like surplus revenue? (which, perhaps need not be worked over again); or, Will the specific topics of our department be exhausted? We realize fully that we are not going to cover the ground in a thoroughly exhaustive way, and that much must be left not only for the historian, but for the economist. We do intend to place the largest possible collection of materials in the hands of both, treating these materials we collect from the economic point of view—that is the public welfare. This is our fundamental thesis; this constitutes the difference between the historian as such and the economist, who uses history as an adjunct.

We have appealed to the members of the Economic Association, and they have answered that appeal most generously. We have reached that stage of our work when we are warranted in saying that the collection of materials will be carried out, and when we can logically and consistently appeal to the interest of the members of the American Historical Association to be joined to that of the American Economic Association as essential to make this great work—projected and paid for by the Carnegie Institution of Washington—a monumental work—the basis from which an economic history of the United States may be drawn, and which shall be of the greatest possible service to students both of economics and of history.

DISCUSSION

ON AN ECONOMIC HISTORY OF THE UNITED STATES

JOHN B. MCMASTER: Those of us who have special interest in the history of our own country must surely have been impressed with the extraordinary activity in that field during the last few years, and we must have also been impressed with the change in the manner of treatment.

We have come to the co-operative period. Of course there is nothing new in that idea, as it has been tried many times in our own country. Spark's American Biography is perhaps the best of earlier attempts at co-operative work. In a later period the American Men of Letters Series, the American Commonwealth Series, and the American Statesmen Series afford other examples; but it has been reserved for our time to attempt to treat our history in this way, and we have now in course of publication four series of co-operative American History, and we have also the work Mr. Wright has outlined to-night.

The difference between them is one on which I wish to say a few words. If you take such a history of the United States as that now being published under the editorship of Professor Hart, you have in general a sort of relay treatment. One author takes up the story where another lays it down and it is carried on in that way.

In the work which Mr. Wright has outlined for us, the manner of treatment is entirely different. Instead of the first author beginning with the discovery of the country and going on to a certain period where another takes it up, each of them will have to go back to the be-

ginning for his foundation and come down to about the present time. So that, if there are eight books or twelve books, instead of having twelve pieces of continuous narrative, we shall have twelve parallel treatments of our history. May such a work be considered an economic history? I think not, for it is only by reading each one of them that we can acquire the information necessary to write an economic history. To take a single illustration: you recall that when the War of the Revolution ended, our country, from an economic point of view, was in a state of complete chaos. We had no treaty of commerce with England nor with Spain, whose possessions surrounded us on three sides and whose islands lay off our door. There were thirteen states, each one of them regulating its foreign trade with its neighbor in its own way. Each state issued its own paper money and made it legal tender, and when it thought fit, backed it up with force acts. Manufactures had scarcely passed beyond the household stage. Mining was a small industry. Agriculture was primitive, and agricultural implements crude. Means of transportation on land were of the poorest kind. Roads were bad, and the great rivers unbridged. In all the country there were only two state banks.

Now, without going into the details of the economic condition, those facts caused a certain amount of distress, which produced two results of interest to the general historian.

In the first place, they drove the people from the seaboard into the Mohawk Valley, and over the mountains to Kentucky and Tennessee. In the second place, they caused the dire distress which made our Constitution just as much a necessity from an economic as from a political point of view. That is shown by the instru-

ment itself. Why has Congress sole power to coin money? Because of the misery produced when each of the thirteen states issued paper money. Why may not a state make anything but gold and silver legal tender? Because they had made other things legal tender. Why should the Constitution require all laws to be uniform throughout the United States? Because when those laws were not uniform the condition of interstate trade was practically

Now, will it be possible in covering this period, say, from 1783 to 1790, in a number of books treating the subject separately in the manner outlined to-night, population, finance, money, coinage, banking, for authors having these subjects in charge to treat them in such way as will set forth the conditions which led to the framing of our Constitution or the western movement of population? Will the general reader get from them, even taken together, such a cross-section as will give him the economic condition of the life of the people at that period?

That, it seems to me, can best be done by some one who, when the books are written, will use them for the purpose of writing a one-volume economic history, a work that ought to be in the hands of every American citizen at the moment.

CHARLES H. HULL: As Mr. Ashley told us, five years ago,¹ historians in all eras seem to have turned their attention by preference to those subjects in the past which chiefly interested them in the present. This is illustrated by the chroniclers of the age of chivalry, the ecclesiastical historians during the wars of religion, and the

¹Annual Report of the American Historical Association for 1899, vol. I, pp. 16-17; printed in full in Ashley's *Surveys, Historic and Economic*, pp. 22-30.

political historians of the nineteenth century, whose performances alone are allowed, by certain disputatious doctors of our modern scholasticism, to be "history proper."

But Mr. Ashley went on to show that the increasing pressure of industrial problems in the age in which we live,—this era of capitalistic industries and world markets,—must produce in its turn, was indeed already producing its appropriate growth of economic historians, a Beloch, a Levasseur, a Webb—modesty forbade him to add, an Ashley.

Economic history, then, is by no means something opposed to "history proper." It is, on the contrary, the proper history for our age. If not exactly heir apparent, it stands, at least, in the legitimate line of historical succession. It may claim good right to enter into the hard-won heritage of the historian's experience.

Now that experience, of a sort pertinent to the Carnegie Institution's undertaking, is by no means inconsiderable. In the field of political history alone, there have been numerous coöperative undertakings, and not a few of them have enjoyed substantial financial support. These, like other books, have had their fates, some of usefulness and some of futility. But among students of political history there would be, I suppose, a fairly general agreement upon one thing at least. All in all, those coöperative undertakings have proved most successful whose managers, refusing to attempt a popular narrative adorned with premature generalizations, have bent their energies chiefly to making available historical documents, wisely chosen and competently edited.

The lesson of European experience seems to be clear and conclusive upon this point. The German "*Monumenta*," the French "*Documents inédits*," the British "*Chronicles and Memorials*," are concurring witnesses,

upon one side ; the series of Heeren, of Oncken, of Lavisse and Rambaud, on the other. Even the volumes now appearing with the posthumous sanction of the prodigious Lord Acton seem unlikely to reverse the verdict.

American experience is to the same effect. Mr. Hubert Howe Bancroft's decision not to publish the best of his fifteen or twenty thousand documents, but to give us, instead, the opinions concerning them all formed by his industrious corps of clerks, has been matter of general regret. Who does not turn ten times to the critical portions of Justin Winsor's "History," indiscriminating though they sometimes be, for once that he refers to its narrative parts?

Or, to bring the matter still closer home, why did the American Historical Association reject the proposal that it issue a comprehensive history of the United States in half a hundred octaves, more or less? Was it for lack of intrinsic merit in the scheme, or merely because, in the opinion of the Association's most experienced members, the personal and financial resources at command would be better employed in supporting a Historical Manuscripts Commission and a Commission on Public Archives?

If, then, we may judge from the experience of political historians, it appears that Colonel Wright and his colleagues can wisely employ the personal and financial resources at their command in collecting the sources of our economic history, in calendaring them, in publishing them, in making them available.

If such is the lesson of experience in political history, the peculiarities of economic history serve but to emphasize its import. The relative superficiality, and the absolute cocksureness of most of our American economic

history, cannot be attributed solely to the newness of the discipline, or even to the theoretical prepossessions of its devotees. In part, at least, the difficulty must be sought elsewhere. Compared with our ecclesiastical history, or especially with our political history, the sources of our economic history are inaccessible. Those social activities whose organs are church and state have long been the subjects of a public interest recognized as legitimate. Records of their operations are comprehensive and continuous, and the public has an acknowledged right of access to them—if not at once, then after a discreet period.

Those social activities, on the other hand, whose characteristic organs have been the business firm and the business corporation have guarded their records with extreme jealousy. Even after the lapse of generations there is still no presumptive right of public, or even of scientific access to these. It is notorious that the facts as to Standard Oil or Amalgamated Copper are hard to come at. But how much more accessible are the historical documents concerning the American China trade or George Smith's money? One of the most serious obstacles to the private study of American economic history is the inaccessibility of the documents. The wide connections, actual and potential, of the Carnegie Institution, its wealth, its prestige, seem to fit it especially to overcome these difficulties. And until they are measurably overcome, no thoroughly creditable economic history of the United States can be written by anybody.

But can any collection of sources, however valuable for specialists, satisfy the needs of the general reader, of the intelligent lawyer, or of the business man, who might have enjoyed the independence and vigor of Gen-

eral Walker's projected volume of lectures, had Walker only lived to publish them? Certainly not. The general reader, however, is not the person for whom the Carnegie Institution was designed. His needs will be otherwise catered to. His name is legion, and precisely on that account the commercial publisher (with the disinterested assistance of the semi-commercial author) may be trusted to look out for him. For example, there are now under way two political histories of the United States, one of them based ostensibly, and the other based, as it appears, in fact, though not in name, upon the plan properly rejected by the American Historical Association.

Given the materials, that is to say, given the documents, and we shall not have to wait long for several popular economic histories of manageable size, which may be safely left to the salutary workings of the struggle for survival.¹

JACOB H. HOLLANDER: The possible interest and value to the American political economist of an economic history of the United States, of the plan and

¹In justice to the courtesy of his intentions towards Colonel Wright, Mr. Hull asks the privilege of printing what he had written as a closing paragraph, but was prevented by the time limit from actually saying in the discussion: "I have been emboldened, Mr. Chairman, to speak thus plainly upon this matter because Colonel Wright's paper has assured us, repeatedly and with emphasis, that '*the real and important work of the Department of Economics and Sociology of the Carnegie Institution is to place the largest possible collection of materials in the hands of both*' the economist and the historian. Those, sir, are welcome words. The members of the Historical Association, I feel sure, will be glad to know that, although the plans of this monumental historical undertaking were shaped in consultation with gentlemen whose professed interests are in economics rather than in history, nevertheless interpretation of the facts of our economic history will be deferred, in part at least, until after the ascertainment of them."

scope described by Colonel Wright, is obviously three-fold. In the first place, it promises an addition or correction to the historical background of economic interpretation. In the second place, it undertakes to describe analytically and systematically the complexities of modern industrial life. In the third place, in undertaking to trace economic development and to picture economic status, it suggests new bases from which economic uniformities are ultimately to be induced and by which they are to be verified.

Of these three possible results the third can be easily dismissed. In the sense that any recital of past economic experience, any synthesis of actual economic conditions, is grist to his mill, the theoretical economist, bent upon the immediate formulation of economic hypotheses, will welcome a comprehensive economic history of the United States as he would a similar work dealing with Germany or Afghanistan.

Similarly, short shrift may be meted the first possible result. The mutual relation of economic history and economic theory is no new theme to this company. To this sustained dialectic I shall venture no further contribution. Whatever advantage, in the nature of precision of thought and economy of effort, attend the solemn partition of an undiscovered country must long since have been attained. Further debate suggests the waste of scholastic controversy, barren in result and mischievous in the suspension of further investigation in the blunting of mental acumen and in the diminution of public respect. I shall merely venture this platitude: If the writing of economic history is of any good to anybody, then the more and the better it be written the greater the cause for rejoicing.

It is to be the second of the three possible aims of the

proposed work—the description of actual economic conditions in the United States, that attention may be more properly turned—not so much to criticize what is projected as to emphasize the desirability of according it larger place.

There will be no serious dissent from the statement that economic investigation in the United States, although pursued with unexampled activity, has been in the last twenty years almost exclusively historical or institutional on the one hand and local or extensive on the other. Of extensive economic investigation, economic description in the proper sense of the term, little has been attempted and less achieved. The historical evolution of economic institutions, as recorded in more or less accessible records, the functional activity of economic organizations as displayed in limited areas, these have defined the scientific activity of the ordinary economist. Of the comprehensive study of the structure and functions of any actual part of the economic organism, we have had in frequent examples.

In the field of local finance, for example, we have had, on the one hand, faithful historical studies of the finances of particular states and cities and of particular fiscal institutions, and on the other hand we have been given intelligent analyses of the present financial status of specific localities. But the investigator has probably not yet attempted—understand I do not say *completed*—an exhaustive study of local finance in the United States, in the spirit in which we may conceive the chemist or the physicist approaching a like problem. Similarly the institutional history of the negro in certain States has been traced and his present status in certain limited localities has been described. But the

larger subject—the negro in the United States—taken in its scientific entirety is still untouched.

Turn where we will, a similar condition prevails. Railroad transportation, trade unionism, taxation, industrial combination, tariffs, as fields of investigations, have been approached only fragmentarily, historically or locally. Brought face to face with extensive subject matter, we have balked and solaced our souls in the thought that comprehensive study of any important economic institutions might properly be postponed until such number of detailed monographs dealing with specific aspects of the subject have been completed as will permit full exposition and safe generalization.

Monographs have multiplied, doctoral dissertations have accumulated, and the progress of economic science, as judged by results, has been inadequate. The experience of twenty years seems to suggest that the prime usefulness of extensive economic studies is educational and local, and that variety of approach, distinctiveness of treatment, change of environment, are grave qualifications, under existing conditions, of the value and certainly of the economy of large reliance upon this monographic method of economic investigation.

The proposition which I venture to submit is that the time has now arrived, when, without any necessary cessation of historical and local studies, the economic investigator, and in particular, he in the United States, if he is to attain his highest scientific possibility, must adopt a larger mode of inquiry—a mode analogous to that employed by the natural sciences, and described as extensive, or descriptive, rather than intensive or historical.

He must derive his subject matter not from past history alone, nor from the present experience of restricted

localities, but he must observe and collect the phenomena under consideration from an area practically co-extensive with their manifestations. He must interpret each group of facts in the light of the conditions prevailing in that particular place; and he must test the uniformities revealed by reference, as tentative hypotheses, to conditions in still other localities.

If he is attempting safe and useful generalizations he must consider, for example, the taxation of corporations, not by one state, but by every state. He must study the structure and functions of trade unions, not with respect to a handful of labor organizations and a few convenient cities, but in the light of the policy and practice, declared an actual of every important national labor union, as displayed in many representative localities.

In a word, the bases of economic industries must hereafter be, to a much greater degree than heretofore qualitative data, amassed as deliberately and laboriously as chemical and physical data are collected by the natural scientist in his laboratory, and at least approximating in comprehensiveness the quantitative material which the public statistician makes available with increasing efficiency.

The successful conduct of economic investigation along the extensive or descriptive course thus outlined, involves certain requisites.

The investigator must be able to command, in addition to ordinary library apparatus, all primary documentary material relative to his enquiry, whether it be as ephemeral as municipal reports and trade union journals, or as unattainable by formal request as trade agreements and corporation records. Similarly, he must be able to publish the results of his investigations

in the precise form which scientific fidelity, or practical usefulness demands, without regard to their commercial attractiveness or to the limited resources of existing scientific agencies.

It is with respect to field and experimental work, that the occasion for largest change exist. Extensive investigation, as distinct from historical study and local enquiry, must bear the same relation to political economy, that field work does to geology, and the clinic to medicine. The immediate environment should first be utilized as an economic laboratory for the development of scientific spirit in economic study and sound method in economic research, and as the field from which bases or working hypotheses may be derived. Thereafter, the investigator must extend the range of his enquiry by visits to, and even residence in representative localities with a view to collecting wider and more varied data and to testing tentative conclusions.

Such a procedure involves two essentials, leisure and resources. The investigator's time and energy, if not entirely available for scientific inquiry, must certainly not be unduly absorbed by the routine engagements of the student or the teacher.

With respect to resources, the investigator must be in command of funds sufficient to enable him to visit, and upon certain occasions temporarily to reside in representative localities for the purpose of gathering additional evidence and of testing and verifying tentative conclusions.

Here seems to lie the present prime usefulness of private endowment in economic research. The description of economic status rather than the narrative or economic development is the urgent need of economic study in the United States.

HENRY R. SEAGER: It would be highly ungracious for an economist to greet the splendid undertaking which Mr. Wright has described only with criticism. As he has indicated, it is really a work of economists, by economists, and for economists. But I take it the purpose of this discussion is less laudation of the enterprise than suggestions as to how it may be made even more effective and to such suggestions I shall at once proceed.

It seems to me that the topical arrangement, which is the most characteristic feature of the investigation, is a necessary consequence of the nature of the undertaking. At the same time the principal suggestions which I wish to make grow out of the particular topical arrangement which has been adopted. One of the first requisites of a topical history of this sort is that the topics shall be exhaustive; that no important part of the field shall be overlooked. I have gone over the syllabi of the eleven divisions rather carefully to make sure that every important part of economic history was provided for, and I have been able to detect only three omissions that seem to me of first-rate importance.

The omission that has impressed me as especially regrettable is that of what I may call "trade." You will remember that the topics succeed each other in the following order: (1), the population of the country; then, not the natural resources of the country which an out-and-out economist would probably slip in, but the more important industries that have been carried on in the country; (2), agriculture and forestry; (3), mining; (4), manufacturing; (5), transportation; (6), domestic and foreign commerce, and (7), money and banking. I thought at first that transportation included all transfers of goods, the mechanical side of trade, and that

domestic and foreign commerce included what I have in mind when I use the term "trade." But the syllabi of these two divisions do not bear out this idea. The classification seems to be rather that between internal transportation by means of railroads and canals and foreign transportation. I find no mention in the syllabi of these divisions of such important topics as changes in the methods of retail trade (*e.g.*, the development from the corner grocery, where everything is to be had, to the specialized city shop and finally to the city department store, where again everything is to be had), or changes in the methods of handling staple products culminating in the modern produce exchange, or of the even more important development in connection with trade in securities which has resulted in the great modern stock exchange. In my opinion the subject of trade is more important than many of those which are given separate treatment in special divisions and the first suggestion that I should like to make is that an additional division be put in dealing with trade; that is, with the people whose business it is to buy to sell again, retail merchants, wholesale merchants, jobbers and brokers.

The second and third omissions that I have noted are of special topics. After the great industries have been dealt with, the later divisions, as the work is outlined, take up four important special topics—the labor problem, industrial organization, social legislation, and federal and state finance. Special topics of this kind might be multiplied almost indefinitely. We all have special problems in which we are interested and to the study of which we should like to have the resources of the institution directed. It seems to me, however, that there are two topics that are not included that are of first-rate impor-

tance and that ought to be considered. The first one is the question of protection—the influence of protection upon the development of our national industries. This is a question which has received all too little scientific treatment in the United States probably because it has been all too much in politics. When one considers the importance of the tariff question to this country, either because the tariff has not done us any good and has distracted our attention from other things, or, if one believes so, because the tariff has done a great deal of good—when one considers this importance, it is really astonishing how little progress we have made towards measuring the actual results that have followed different tariff laws. It seems to me that the Carnegie Institution might advantageously foster the impartial consideration of the economic consequences of successive tariffs.

The other subject which it seems to me ought to receive special consideration is our patent policy and its results. Our patent policy is referred to in the division on manufactures probably because most patented articles must be manufactured. From the point of view of industrial history, however, the importance of our patent policy is in connection with its influence in fostering our industrial development. Since our dominant industry has been and still is agriculture, if the patent system is to be treated under any one of these special divisions it seems to me to be more appropriate under the head of agricultural industry. There is where it has had the most influence, but obviously it has influenced every one of our industries. I think that the patent policy is of sufficient importance to receive special consideration.

The last suggestion which I wish to make touches a

point to which Mr. Wright has himself referred, that is, that this investigation as planned will not give us an economic history of the United States. It will give us simply a number of volumes treating of distinct topics.

A clever writer has recently defined a magazine as a small body of literature completely surrounded by advertisements. Looking over some of these syllabi one might infer that what is contemplated is a small body of description completely surrounded by statistics. If this investigation is to have the influence upon contemporary thought which it ought to have, some one must verify the information presented with their flesh and blood, which distinguishes literature from dry-as-dust history. The query which I wish to raise in closing is whether it would not be wise at the very outset to arrange for the preparation of a final volume or two volumes, to bear the same relation to the whole work as does the final volume of the report of a government commission appointed to investigate a particular problem? Such a volume or volumes should describe the development of the country as it has actually occurred; that is, not topically but chronologically. It would make full use of all the facts collected in connection with the earlier volumes, but would have—what those earlier monographs, of course, cannot have—due regard to questions of emphasis, proportion and perspective. In such a final volume the important rôle played by the trapper and hunter in our national history would be indicated instead of being lost sight of, as threatens to be the case in the work as planned. The great significance of free land and of our public land policy would be considered, not from the narrow standpoint of one particular industry, but with reference to their influence on our whole industrial life. In the same way the relative im-

portance at successive periods of our principal industries would be brought out and not left to the imagination of the reader, as must be the case when each one of these branches is treated separately. Finally, in such a volume, more attention would be given to the problem of literary presentation than seems probable in connection with many of the divisions as outlined.

Of course there are objections to the appointment of an official historian, as the writer of the proposed final volume would practically be, and yet I believe that the deliberate selection of some scholar equally versed in economics and in American history to do with the materials to be published by the Institution what some self-constituted interpreter will do in any case, would be highly desirable. It would insure a more prompt completion of the economic history we so much need, and, at the same time, give us a better history than we are likely to get in any other way.

CARROLL D. WRIGHT: I want to thank the gentlemen for the kindly way in which they have discussed the project of the institution. I think I agree with every suggestion that has been made by the three gentlemen. As I stated near the close of my paper, our chief purpose is to furnish a body of material for the use of both historians and economists. We have, perhaps, been unfortunate in calling this an economic history, but it started out that way, and the child was so named. We have not felt quite like changing it, but I have been particular to guard that, and say that our chief purpose is the collection of material. Whether any one of us or all of us ever write a complete economic history of the United States is problematic.

All the points that Professor Seager mentioned, except

the one relating to hunting and trade, I think, are covered in our plans.

I want to say one word about that department store topic. Now, the corner grocery was a department store, and these great stores down here on State street are just simply larger, that is all. The country store kept everything that the community wished to purchase. It was a department store on a very small scale, and from it a modern department store has taken its prestige.

But I should like to have Professor Seager or any one point out any practical way by which you could get at the trade of the country. I have puzzled over it for thirty years, and I have attacked a great many gentlemen, and all I can ever get out of them is that they would like it. Now, a man who is to get the truth wants something more than a desire; he must have a working plan. When you trace a piece of cotton goods around and around through its various channels you have summed up a volume of trade that is not there. So if there is any one in this Economic or Historical Association that can project a plan by which we can get at, through any governmental or any other institution, the trade of this country, as suggested by Professor Seager, he will do a vast service. We will try it, but I have never seen a plan on which it could be conducted.

I can assure the gentlemen of these two associations that the purpose of this department is to help the student, not the old man; we do not care much for him. He is past help, as a rule. But the young student, a student who is trying to solve some of the economic problems of his time, we hope to furnish with the materials out of which he can construct his work. That is the object of the Carnegie Institution, to furnish material to aid the student, wherever he is, and in every

way that is possible to aid him with the money at its command. And it seems to me, recognizing every word that was stated by Doctor McMaster, Professor Hull and others on the historical side of it, there is need of material out of which may be constructed by somebody a continuous, harmonious and complete economic history of the United States; and if this little body of men can aid in securing that material and presenting it logically so it can be useful and easily usable, it will have accomplished its chief purpose.

F. W. TAUSSIG: We agree that the Professor is right in his presentation, and I am sure we all wish success to *The Economic History of the United States*.

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LIST OF MEMBERS

This edition of the annual list of members has been enlarged with a view to its wider usefulness, and this has necessitated some delay in its issue. The difficulty of securing the additional information was known to be great, but it has proved to be greater than was foreseen. The uneven execution of this first attempt is due, for the most part, to the failure of the members to return answers to the schedule of inquiry. Use has been made not only of all the schedules returned, but of a number of other sources of information. Even these necessarily brief and incomplete biographical notes may serve to give a better idea of the membership and of the range of interests included within the Association. It is to be regretted that much of the information given by those who filled out the inquiry sheets regarding their interests and activities had to be omitted for lack of space. Much of this material may be embodied in future editions of the Handbook, if it seems desirable.

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PART I

HISTORY OF SHIPPING SUBSIDIES

GREAT BRITAIN

INTRODUCTORY

The advocates of government aid to shipping refer to Great Britain as the foremost example of a subsidy giving power, and ascribe the supremacy of the British merchant fleet to the policy of giving liberal subsidies to steamship companies: the opponents of this policy use the same facts to prove that the merchant marine thrives best without subsidies. They assert that Great Britain gives no subsidies and has a flourishing merchant marine. On the other hand, France and Italy give heavy subsidies and their shipping interests are not prosperous. Without further investigation, in fact without testing the accuracy of these assertions, the conclusion is drawn that subsidies to shipping are harmful.

Without entering into the discussion here of protection vs. *laissez faire*, we will gather the facts of British policy and then attempt to discover, if it be possible, the effects of this policy on the growth of the British merchant marine. A policy of favoritism toward shipping was begun in Saxon England¹, and continued more or less consistently down to the time of Cromwell, but the monopolistic advantages granted to British ship owners by the statutes of Richard II and later sovereigns had little effect because the laws were so laxly enforced. It was not until the Navigation Acts under Cromwell's

¹ Blakemore, *The British mercantile marine*, pp. 1-2.

Protectorate (1650-51) that protection by means of prohibiting foreign vessels to take part in the strictly English trade, was vigorously applied. The effect upon the Dutch, who were at that time the carriers of the sea was immediate and disastrous. There is no means of learning how much it cost Great Britain to take possession of her foreign and colonial trade in this way. Directly and indirectly the costs were enormous, but the results were tremendous and no one can maintain that the ends did not justify the means.

The first direct bounty to shipping was granted in the reign of Elizabeth, when Parliament gave a bounty of five shillings per ton to every ship above 100 tons burden. The law was revived in the reign of James I.

In 1626, the law was changed so as to apply only to vessels of 200 tons or over. The statute, 14 Car. II, (1662) c. 11, granted one-tenth of the customs dues on the vessel's cargo for the first two years to every vessel of $2\frac{1}{2}$ or 3 decks carrying thirty guns. Under 5 and 6 William and Mary (1694), the time was extended to three years. These bounties were in the nature of the modern admiralty subventions, for the purpose of encouraging the construction of larger, swifter, and more efficient vessels for use in war. There is no reason to suppose that these early bounties had any noticeable effect on ship construction.

During the latter half of the eighteenth century, the Parliament systematically subsidized vessels engaged in the fisheries as a means of training sailors for the royal navy and the merchant marine. So-called bounties for the catching and curing of fish had existed from the time of William and Mary, but these payments were in the nature of drawbacks for the salt taxes. In 1750, Parliament granted a bounty of 30s. per ton to decked

vessels of 20 to 28 tons, engaged in the white herring fisheries. Adam Smith discussed the effects of the fishing bounties in Book IV, ch. V of his "Wealth of nations." He says that from 1771 to 1781, the tonnage bounties for the herring buss fishery amounted to £155,463, 11s. or 12s. 3 3/4d. per barrel of merchantable herrings. In 1759 the bounty to vessels engaged in the white herring fishery was 50s. per ton. The whole buss fishery of Scotland brought in only four barrels of sea sticks (dried herrings). In that year every barrel of saleable herrings cost the government in bounties alone £159, 7s. 6d. Smith says, "The bounty to the white herring fishery is a tonnage bounty and is proportional to the burden of the ship, not to her diligence and success in the fishery; and it has, I am afraid, been too common for vessels to fit out for the sole purpose of catching, not the fish, but the bounty." After showing the costliness and inefficiency of the bounty, he says that it may perhaps be defended on the ground of contributing to the national defense by increasing the number of sailors and ships, at less cost than the keeping of a large standing navy. Here again the question of the bounties concerns the war navy and not the merchant marine. It is very doubtful, however, if the sums paid in bounties to the fisheries did actually contribute to the power of the English navy. The fishing vessels were small and of little use in war even in those days. It is true that more sailors were given employment, but their numbers were insignificant compared with the great numbers of men needed to man the British navy during the wars of that period. The cost of encouraging the fisheries was so greatly out of proportion to the results obtained that we may be very

certain that the British nation received but a meager return for its extravagant outlay. In all probability much more would have been accomplished toward building up the navy by expending the amounts directly in maintaining war vessels.

It is worth noting that, in the Parliamentary debates upon the measure first granting these fishing bounties, no mention was made of the patriotic intention to build up the British merchant or war marine. The promoters of the bill of 1750 were interested in the fisheries and they asked support for their measure solely on the ground of the great national benefits to be reaped by cultivating the fisheries. Bitter complaints were made against the Dutch, because of their success in this industry.¹

During this period England paid heavy bounties to the cod and whale fisheries of New Foundland and Labrador. Throughout the reigns of George II and George III, we find such fishing-bounty legislation. The effects of all these bounty acts are too slight to deserve any special investigation or discussion. The same is true of the bounties on naval stores, granted under William and Mary, and continued till the reign of George III.

Great Britain has never granted general navigation bounties, and, with the exception of the bounty of five shillings per ton for vessels above a certain tonnage granted in the reign of Elizabeth, no general construction bounties have ever been granted by the British government. When mention is made of British shipping subsidies, the postal subventions are invariably meant.

¹ Hansard's Debates, vol. 14, p. 762, *et seq.*

POSTAL SUBVENTIONS

The North American Mails. The system of ocean mail subsidies is commonly said to have originated with Mr. Samuel Cunard, though, as we shall see, this is not strictly true. Because of its importance in the history of the development of steam-navigation, however, the Cunard line will be treated first in order among the subsidized mail lines.

In 1838, the Board of Admiralty invited tenders for a mail service between Liverpool, Halifax and New York. Two tenders were received; one by the Great Western Steamship Company for a monthly service to Halifax for £45,000 a year, the other by the St. George's Steam Packet Company for a monthly service between Cork, Halifax, and New York for £65,000 a year.¹ Neither offer was accepted, as the government desired a bi-monthly service. Mr. Samuel Cunard then (1838-9) made private arrangements with the Board of Admiralty for a seven years' contract to carry British mails between Liverpool, Halifax, Quebec and Boston, twice a month, for an annual sum of £60,000, less £4,000 for making only one voyage in each of the months November, December, January and February.² The contract required Mr. Cunard to furnish four ocean steamers and two small river steamers on the St. Lawrence.

In 1841, the subsidy was increased to £80,000 and the number of ocean steamers was increased to five. In 1846, the subsidy was arbitrarily increased to £90,000 but was soon reduced to £85,000 on account of the abandonment of one of the boats on the St. Lawrence.³

¹ Parliamentary papers, 1846, vol. 15, no. 563, and 1849, vol. 12, no. 571, pp. 132-3.

² See Parliamentary papers 1839, vol. 46, no. 566.

³ *Ibid.*, 1849, vol. 12, no. 571, p. 134.

Mr. W. S. Lindsay says of these contracts¹: "Although no unfairness was alleged against Mr. Cunard and his partners, and no valid charges could be raised against the manner in which the mail services were performed, the Great Western Company had sufficient influence to obtain a parliamentary inquiry. They asked it first on the broad grounds (which have since been frequently raised, and now with much more show of justice than then), that the public was taxed for a service from which one company alone derived advantage, and which could be equally well done and at less cost if mails were sent by all steamers engaged in the trade, each receiving a certain percentage on the letters they carried; and secondly, because their company had been the first in the trade and had incurred great expense and risk in developing steam communication between Great Britain and the United States."

The select committee appointed by Parliament (in 1846), to inquire into the mail contract with the Cunard company, reported that, "the arrangement has been concluded on terms advantageous to the public service, and have been most efficiently performed by Mr. Cunard. But your committee do not wish to express any opinion whether a more advantageous one might not have been entered into, had the tender been thrown open to public competition. Your committee, however, cannot but regret that the above arrangements involve consequences injurious to the Great Western Steamship Company; and considering the meritorious character of the services rendered by the latter company, and its priority of establishment on the New York line, will be glad if, on any future extension of the Royal

¹ *History of merchant shipping*, vol. IV, p. 184.

Mail service, it receives the favorable consideration of the government.”¹

In the testimony before this select committee it was brought out that the Great Western Company had offered to perform the service on practically the same terms as Mr. Cunard, but their offer was rejected and later the contract with Mr. Cunard was made privately with no attempt to have a public letting. Later on the Great Western Company offered to do the service for one-half the amount paid the Cunard Company, but the offer was rejected on the ground that the Cunard Company had a previous claim. The payments to the Cunard Company put the Great Western line at a considerable disadvantage, so that it was only by superior enterprise and management that it was able to survive. This was the more true because the payments were excessively high in comparison with freight charges in general.²

In order to meet the competition of the Collin's line,³ Mr. Cunard added four new steamers in 1848 to run directly between Liverpool and New York, in consideration of a subsidy of £145,000 a year for forty-four voyages, being £3,925 per voyage, or 10s. 6½*d.* a mile. In 1851, the subsidy was again increased, and in 1852 a modified contract for ten years was made providing for £173,340 for fifty-two round trips, or at the rate of 11s. 4½*d.* a mile.⁴

A select committee of Parliament appointed in 1852

¹ Report of select committee, Parl. papers, (1846), vol. 15, no. 563, p. 3.

² See Parl. papers, 1846, vol. 15, no. 563, ques. 14.

³ *Ibid.*, 1849, vol. 12., no. 571, pp. 133-4.

⁴ *Ibid.*, 1849, vol. 12, no. 571, and 1851, vol. 51, no. 406.

⁵ *Ibid.*, 1852-3, vol. 95, no. 195, p. 19; 1861, vol. 12, app. 265-272.

to investigate the mail packet contracts reported¹ that the cost of the North American service did not seem excessive, but recommended that all contracts thereafter be let at public bidding. This sensible suggestion was not always followed by the government.

But Mr. Cunard did not confine his activities to the securing of snap contracts by private and unpublished agreements. In 1853, he succeeded by great effort in defeating a petition for a charter of limited liability entered by the London, Liverpool and North American Screw Steamship Company in order to start a line to compete with Cunard.² The Board of Trade refused to grant the asked-for charter, although they had already granted similar charters to the Royal West India Mail, the Pacific Steam Navigation Company, the Peninsular and Oriental Company and many other lines.³ Mr. Cunard urged that it would be unjust to set up a limited liability company to compete with those who had embarked their own capital in trade, because these companies were formed by persons who know nothing of the business, and who will be aware that individuals can not stand out against them with their limited liability.⁴ On the other hand, it was shown that, so far as the trade between Liverpool and New York was concerned, Cunard possessed a monopolistic advantage until the advent of the American (Collins) Line. In 1844, Cunard reduced freight rates from £7 to £3 10s. opposing the "Great Western" steamer⁵; in 1848, he reduced rates from £7 to £2 10s. when the steamer

¹ See Parl. papers, 1852-3, vol. 95, no. 195.

² *Ibid.*, 1852-3, vol. 95, no. 730.

³ Parl. papers, 1854, vol. 65, no. 299.

⁴ *Ibid.*, 1852-3, vol. 95, no. 730, pp. 31 and 56.

⁵ (The Great Western Co. was obliged to go out of business later.) See *Ibid.*, p. 66.

"United States" was at Liverpool.¹ By Mr. Cunard's own statement he reduced freight and passenger rates by one-half when the Collins line came on.² From these and other facts set forth by the petitioners it is evident that the subsidies granted to Mr. Cunard injured the development of English steam shipping on the North Atlantic, by deterring some enterprises and by enabling Mr. Cunard to club others out of the business.³ As we have already seen, Mr. Cunard did not originate steam transport across the Atlantic. In fact, the Cunard Company never originated anything but the art of securing mail contracts by private agreement on favorable terms. Mr. Cunard consistently refused to make improvements until forced to do so by competition. The first iron screw steamer ("Great Britain") for trans-Atlantic trade was built in 1843 by the Great Western Company, and in 1850, the Liverpool and Philadelphia Steamship Company began running screw steamers regularly. It was not until December, 1852, that the Cunard people began to run a screw steamer⁴; not on the mail routes however. Their first iron ship was built in 1855, and they did not abandon the antiquated paddle wheels on the mail steamers until 1862.⁵

Complaints and criticisms were not confined to the home country. In 1853 and again in 1856, the Governor General of Canada protested against the Cunard subsidy on the ground that in consequence the Canadian government was obliged to pay a subsidy to a line of

¹ Parl. papers, 1852-3, vol. 95, no. 730, p. 55.

² *Ibid.*, p. 7.

³ See especially Parl. papers, 1852-3, vol. 95, no. 730, pp. 44-50.

⁴ Parl. papers, 1852-3, vol. 95, no. 730, p. 35.

⁵ Frye : *History of North Atlantic shipping*, p. 55-III.

steamers plying on the St. Lawrence.¹ Again in 1859 the Canadian government protested against the Cunard contract, declaring that it was showing favoritism and thus injuring trade. No heed was given to these protests.

In 1857, Mr. Cunard asked for a five year extension of his contract on the plea that the Americans were about to build larger and more powerful steamships.² The Lords of the Admiralty recommended that the Treasury accept the proposal.³ The Duke of Argyll, who was then postmaster general, urged the Treasury to reject it and throw the service open to competitors. He showed clearly that the policy of giving mail contracts to individuals on their own terms was both costly to the state and injurious to shipping.⁴ He strongly recommended the policy of public letting laid down by the select committee of 1853; but in spite of his protest Cunard obtained what he wanted.⁵ The contract provided the same amount (£173,340) for the Halifax and New York route and an additional £3000 for a monthly service between New York and Nassau in the Bahamas. It was to continue from June 24, 1858 to January 1, 1867.

It is a noteworthy fact that, during the time while the Cunard line was enjoying monopoly of government favor, its rivals distanced it so far as improvements were concerned and competed successfully despite or because of governmental favoritism. The mail pay-

¹ Parl. papers, 1859, sess. 2, vol. 22, no. 184, p. 13.

² *Ibid.*, 1859, sess. 2, vol. 22, no. 184, p. 42, *et seq.*

³ *Ibid.*, 1859, sess. 2, vol. 22, no. 184.

⁴ *Ibid.*, 1859, sess. 2, vol. 22, no. 184, pp. 43-5.

⁵ *Ibid.*, and 1861, vol. 12, no. 463, appendix no 1, North American Mails.

ments made it possible for the Cunard company to cling to an out-of-date and uneconomical type of steamer. Both the Admiralty and the Post Office departments refused to permit mail steamers to use the screw propeller until long after other lines had adopted it. As late as 1851 the Board of Admiralty condemned iron as a material for the building of hulls¹, because, as they said, it could not resist shot so well as wood. Nothing can better illustrate the danger of putting into the hands of an official class the power to determine industrial means and methods. Without government aid to inefficiency, the Cunard Company would have been compelled to adopt improvements in order to compete with other and more progressive lines. As it was, the certainty that the subsidy would be cut down or perhaps taken away stimulated the Company to progressive action. Mr. Henry Frye, in his "History of North Atlantic steam navigation" (p. 81) says "For thirty years they [the Cunard Company], never altered the saloons, the staterooms, the bill of fare, the meal hours, or any of the details. They had no bath or smoking-rooms, no piano and only an apology for a ladies' cabin. . . . In truth, for a time they seem to have fallen into the evils inherent in all monopolies; unbroken success made them over-confident and they now received a rude awakening. The White Star boats beat them not only in speed, but in comfort and conveniences, and it became evident that the halcyon days of subsidies were nearly over." Mr. Thomas Rhodes says,² "Now while approving the course adopted by Mr. Cunard and admiring his success in it, I nevertheless maintain his state-created ascendancy to have been distinctly prejudi-

¹ Parl. papers, 1851, vol. 21.

² See *Engineering Magazine*, vol. 6, p. 54.

cial to the natural development of British shipping within the sphere of his activity. I go further and assert that the Cunard line has had since to pay for the unsound traditions it inherited from this era of unnatural, and therefore unsound, development. Lest it should be thought there is something inconsistent in approving a course and at the same time accounting it prejudicial, I will explain how the two might be reconciled. Let a ship owner get all he can, but, if he wishes his line to live and prosper, let him distinguish between undeniable trade earnings and the proceeds of diplomacy." Without fully approving the above sentiments, I am persuaded that the facts show that the Cunard line did receive real subsidies, concealed in the form of postal subventions, that the first effects were to help Mr. Cunard at the expense of his competitors, and that the after effects not only injured steam navigation in general, but hurt the Cunard line itself.

In 1868, the Post Office department was empowered for the first time to negotiate contracts for the mail service. The post-master general, Lord Alderly, demanded in 1866 that the contracts with the Cunard Company be terminated and the service thrown open to public competition. In his letter to the Treasury he says that, if the contract for carrying the North American mails had been let publicly in 1862 as urged by the Duke of Argyll, it is highly probable "that instead of the annual loss which had been incurred, amounting to about £100,000 a year, tenders would have been received from parties willing to carry the mails ---- for the amount of the sea postage and that, during the six years a very large saving might have been effected." To prove his statement he mentioned that Mr. William Inman offered

to carry the mails and did carry them for the sea postage only.¹

Tenders were accordingly invited in 1868 and, after a good deal of delay and difficulty, caused by the favoritism shown by the Treasury toward the Cunard line, contracts were concluded with Mr. Inman for a fortnightly service to Halifax for £750 the round trip, *i.e.*, £19,500 a year, and for a weekly New York service for the sea postage, *i.e.*, 1s. an ounce for letters, 3*d.* a pound for newspapers and 5*d.* a pound for books. The North German Lloyd also contracted to carry the mails every week for the sea postage. Mr. Cunard agreed to give a weekly service to New York for £80,000 a year. All contracts were drawn for one year.²

Mr. Inman objected vigorously to the favoritism shown by the government to the Cunard Company. He says of the New York service; ³ "I tendered to advertisement in full faith that the Post-Office had fixed the pay, and I think even now others will do it, if Cunards will not, (*i.e.*, carry mails for the sea postage only.) Our steamers are as good as Cunards', who followed our example in screws and we have performed and always been ready to perform as much service in war time as the Cunards. Any advantage given them over us can only injure the public service, because how can we, as mail carriers, have a fair trial unless both are treated alike? The age of my company (seventeen years), with as good a fleet of mail steamers as Cunards' (yet with no grant against their £176,000 a year) proves that on equal terms we should long since have been before them, or the service better than it is."

¹ Parl. papers, 1867-8, vol. 41, no. 42, p. 22.

² *Ibid.*, 1867-8, vol. 12, no. 42.

³ *Ibid.*, p. 52.

In justice it must be said that the contracts as finally agreed upon were not so flagrantly favorable to the Cunards as on the surface they appear; for the company was obliged to pay to the British Post Office all the postage received from the United States Post Office. But even with this deduction, the utter unfairness of the arrangement is evident. The excuse, that no other line offered to take the mails on any terms, is scarcely valid. The service had formerly been weekly. It was now suddenly made tri-weekly, with additional mails sent by the Hamburg-American steamers. The public would have been amply served for a time with a bi-weekly mail, and the Cunards would have been glad to come to the terms accepted by the other lines in order not to lose the very profitable business of carrying the mails. The plea made by the Cunard Company, that they had been to enormous expense in building large, swift mail steamers which would be entirely useless for any other purposes, is equally invalid. Mr. Samuel Cunard stated¹ that the first screw steamers built by him were not intended for the mail service. The records of voyages made by trans-Atlantic steamers² show that unsubsidized lines made as quick time as the Cunard liners. The subsidies received by the different steamship companies for the year 1868 were as follows³: Inman line, £23,390; North German Lloyd, £11,772; Hamburg-American (non-contract), £5,157, as against the Cunard Company's £80,000 less about £7,118, the postage received from the United States P. O. department. The amount actually earned by the Cunard Company

¹ Parl. papers, 1852-53, vol. 95, no. 730, p. 56.

² *Ibid.*, 1868-69, vol. 6, no. 106, app. 1, (A) and (B); vol. 34, no. 119.

³ *Ibid.*, 1868-9, vol. 6, no. 106, app. 1 (C).

at sea postage rates was £28,686, leaving a loss to the government of £44,196. If a private individual made such a contract, his relatives would have a guardian appointed for him. Yet the subsidy to the Cunards in 1868 was much less than half what it had been for the previous ten years.

When the Post Office advertised for tenders for the North American mail service (Queenstown-New York) in 1868, they discovered that the Inman line and the Cunard line had formed a "community of interests", agreeing not to underbid each other. They asked for a ten year contract on the basis of £50,000 fixed subsidy for a weekly service. After much discussion a contract was finally made with the Cunard Company for a bi-weekly service for £70,000, and with the Inman Line for a weekly service for £35,000, both contracts to run seven years. At the same time contracts were made with the North German Lloyd and the Hamburg-American lines to carry the mails weekly for the sea-postage.¹

A select committee was appointed by Parliament in 1868 to investigate the letting of these contracts. It reported as follows: "These contracts, no doubt, present a very favorable contrast to those entered into with Messrs. Cunard in 1858 and again in 1868; but the payments to be made when compared with those made by the American Post Office, for the homeward mails, are widely different, inasmuch as the American Post Office has hitherto paid only for actual services rendered at about half the rate of the British post-office, when paying by the quantity of letters carried; and Mr. Scudmore and Mr. Inman state that a considerable portion of the cost of the American mails to England

¹ Parl. papers, 1867-8, vol. 41, no. 42.

is, in fact, borne by the British Post Office, although the receipts are equally divided between the two offices."¹

The committee recommended that the contracts with the Cunards and Inman be disapproved in the following language; "Under all circumstances we are of the opinion that, considering the already large and continually increasing means of communication with the United States, there is no longer any necessity for fixed subsidies for a term of years in the case of this service; and having regard for the fact that a weekly service has been carried on by Mr. Inman in 1868 in consideration of receiving the sea-postage only, to the difficulties which these contracts would for eight years throw in the way of any great reduction of postage, we recommend that the contracts with Messrs. Cunard and Mr. Inman's Company be disapproved, compensation being made, if necessary, on the basis of the contracts for services already performed in the past year."

The recommendations of the committee were disregarded by the government, and the contracts were duly ratified.

In 1875, the postmaster-general applied the principle of payment according to weight throughout to the mails from Great Britain to New York. Preference was given, however, to British ships, which received 4s. per pound for letters, and 4*d.* for printed matter, while the North German Lloyd received only 2s. 4*d.* for letters and 2*d.* for papers. An arrangement was made in 1887, by which the Cunard and Oceanic lines were to carry all mails except specially directed letters. The compensation to British vessels, whether under contract or not, was reduced to 3s. a pound for letters, and 3*d.* a pound for printed matter, while foreign vessels were

¹ Parl. papers, 1868-9, vol. 6, no. 106, p. v.

allowed only the international postal rates,¹ (5 francs per kilogram, or about 2s. per pound for letters and 50 centimes, or about 2½*d.* per pound for printed matter). This method of payment prevailed until 1902.

Mr. Thomas Rhodes says of the British mail subsidies²: "It is impossible to say definitely what amount of aid the British government has offered to national shipping interests. But if the amount was known, it would be equally impossible to estimate the effects of such aid with sufficient exactness for the result to be worth serious consideration. The so-called subsidies granted are on record, and so are the successes and failures which attended the undertakings associated with them. All this, however, amounts to nothing. Had the pecuniary support to the steamship companies been given in stricter accordance with the term employed, as the system is at present, and had payment for service rendered not been blended and confused with payment for the supposed or real founding of imperial interests, there would have been data for theorists to conjure with. As it is, the figures would form a very unsatisfactory base to build even a theory upon. It is the tale of well nigh every inquiry connected with political economy: the circle is 'vicious' and arguments *pro* and *con* might be sustained forever. Nothing remains therefore but to treat the subject 'historically'."

This is indeed a cheerless alternative. Historical and statistical studies in economics are not especially fascinating, even when pursued with the sustaining hope of ultimately arriving somewhere; but to attack a

¹ Parl. papers, 1887, vol. 49, no. 165.

² T. Rhodes: "Effects of British subsidies," in *Engineering Magazine*, vol. 6, p. 54, *et seq.*

historical problem of such difficulty with no prospect of ever laying a foundation solid enough "to build even a theory upon" requires more than human courage. If historical economics is to be a mere chronology of economic happenings, with no attempt to establish generalizations, then it is absolutely useless. It may be impossible to establish indisputable connections between the prosperity or decline of shipping and any given economic policy, but to show this impossibility is worth something. Imperfect as the data may be, they are perhaps sufficient to answer the questions whether Great Britain is or ever was committed to the policy of giving subsidies for purposes of extending commerce and building up the merchant marine.

A study of the British mail subsidies, to be of any value, must get at the motives of the government in granting subsidies; discover if the payments were excessive in consideration of the services rendered; and show, as far as possible, the effect of the payments upon shipping and commerce.

It is frequently asserted that the subsidies paid by Great Britain for the trans-Atlantic service are and always have been merely payments for carrying the mails at minimum cost. The fact that foreign vessels are willing to carry the mails for the international postage, which is about one-third less than the allowances now given by Great Britain to British ships, shows that the mail contracts are not mere business arrangements, made to secure the cheapest and best possible service. From 1858 to 1868, when the Cunard line received more than £176,000 a year for a weekly trans-Atlantic service, the mail payments must certainly have been very remunerative. The mail service had been doubled, but the payments had increased nearly three-fold since 1840.

The question is not, did Great Britain pay real subsidies? The questions to be answered are, What did Great Britain aim to accomplish with subsidies? and Did the subsidies accomplish what was expected of them?

The attitude of the British government clearly indicates that the subsidies were first given with the intention of securing better communication with Canada by means of British ships. But there is no reason to suppose that the government had any clear, far-sighted policy intended to build up a British freight-carrying marine. The subsidies were at first granted solely to enable the government to employ British ships to carry British mails. It was not till later that the government, and to some extent the public, adopted the idea of using the mail subsidies to develop commerce and shipping and to increase the available fighting force of the navy.

It is idle to speak of the "cost of service" under the first mail contracts, as there was no basis upon which to reckon the costs. The amount claimed by Mr. Cunard was the difference between the estimated cost of maintaining the line and the estimated income from freight and passenger traffic. Both these fictitious amounts were at first mere guesses. The difference was fixed by an estimate of what the government would consent to pay rather than by the probability of a deficit. The principle upon which the payments were based was "value of service" to the government, and not "cost of service" to the undertaker. By many it is doubted if the service was worth the amount paid for it. Probably the contracts could have been let more advantageously if the government had acted more openly and less hastily. The larger payments later made for increased service had no relation to increased costs of service.

The assertion so earnestly maintained by Mr. Cunard and his partners, that the value of the service to the government far exceeded the sums paid, cannot justify the expenditures, for the service could have been renewed for half the amount paid the Cunard company. The payments were in large part concealed bounties. The conclusion cannot be avoided that here we have the familiar phenomenon of exploitation of government by private enterprise.

The postal subsidies did not first establish steamship communication between England and North America. As we have seen, the subsidies hindered rather than helped the natural development of steam navigation. The payments helped the Cunard company to make larger profits, and probably made possible the establishment of a *regular* line of steamers earlier than would otherwise have been the case. But in the same degree as the subsidies encouraged Mr. Cunard to build and run steamers, they discouraged others from entering the field. The alleged benefits to the war navy are equally fictitious. In every war the great body of transports have been furnished by unsubsidized lines. As cruisers, the fastest trans-Atlantic liners would be worthless in a real naval war. The select committee of 1853 condemned emphatically the attempt to make war vessels of the mail steamers.¹ In 1902, the British Board of Admiralty declared that the payments to steamship companies by that board were worse than wasted.

The formation of the International Mercantile Marine Company, October 1, 1902, gave the British public a great fright. The English papers were filled with dismal prophecies of the speedy decay of British prestige in over-sea shipping. The government was moved by

¹ Parl. papers, 1852-3, vol. 95, no. 195, p. 5.

the popular clamor to interfere and prevent the Cunard Company from joining the combine. To effect this, the government agreed to pay a fixed subsidy of £150,000 a year in lieu of the present admiralty subvention of about £15,000 a year, on condition that the Cunard Company build two liners having a speed of 24 to 25 knots. The government is to advance the funds necessary to build these vessels at $2\frac{3}{4}$ per cent. interest payable in twenty years. The Company agreed never to become denationalized. The mail pay is to remain as before, so that the total annual subsidy to the Cunard Company, after the two new fast liners are built, will be about £200,000.

In speaking of the new subsidy, Mr. Gerald Balfour, president of the British Board of Trade, said: "This sum may, perhaps, appear at first sight a somewhat large one; but I can assure you that the point has been most carefully considered, and that we have come to the conclusion that this sum is not more than a fair remuneration for the service to be rendered. To the principle of paying a subsidy in excess of the remuneration fairly due to the services rendered by any shipping company the government is perfectly opposed. Such subsidy we regard as merely bounty in disguise, and to the principle of giving bounties we are resolutely opposed." What the basis is for computing the value of "the services to be rendered", we are left to guess. The only new obligation put upon the company is the building of two new vessels of unrivaled swiftness, and it might be supposed that the government loan was sufficiently favorable to cover all extra expenses and risks in this attempt to excel the fast German liners. The only discernible service to be rendered by the company in return for the £150,000 subsidy is to carry the British flag

across the Atlantic at high speed. In fact, the British government seems to have been frightened into the old policy of giving extravagant payments, ostensibly for the post, but really for the maintenance of British supremacy of the seas. The new subsidy as conditioned will at first enable the company to offer an unrivaled service so far as velocity is concerned. Whether this artificial stimulus will work to the ultimate advantage of the company may well be doubted. Real subsidies to individual lines tend to foster inefficiency, and, as we have seen, in the end injure the subsidized lines as well as their rivals. True, conditions have changed. Free competition is greatly limited by great companies and combinations. Other nations give large shipping subsidies, and, as the maintenance of communications with her colonies is of first importance to England, she may be obliged to pay large subsidies in order to keep these communications in her own hands. But the necessity for such action seems to lie far in the future. The danger of foreign competition in shipping has been greatly exaggerated and the Cunard Company has shrewdly taken advantage of the Briton's pride in the British merchant marine, and coined its "patriotism" into good pounds sterling.

The agreement between the British government and the International Mercantile Marine Company lays down that the British companies in the combination shall be treated as other British shipping companies in respect of naval, military, or postal services so long as the said companies shall continue to be British. A majority of the directors in these companies must be British, their ships must be officered by British officers, and manned "in reasonable proportion" by British crews. Their ships may not be transferred to foreign registry without

the written consent of the President of the Board of Trade, "which shall not be unreasonably withheld". The Admiralty may hire any British ship in the combine at any time. At least one-half of the new tonnage built for or acquired by the International Mercantile Marine Company in each successive period of three years, including "a reasonable proportion" of the faster vessels, shall be allotted to the British companies and registered as British ships. The agreement is to be in force for twenty years from September 27, 1902 and thereafter subject to five years' notice on either side; but the British government may terminate the agreement at any time if it deem that the company is pursuing a policy detrimental to British shipping or commerce.

British ship owners complain that their government does nothing to help shipping, but, on the contrary, subjects British ships to onerous and burdensome regulations as to loading, victualing, etc., from which foreign ships are exempt. The testimony before the select committee on steamship subsidies in 1901 is full of these charges. It is true that, for a time, the government did not trouble itself much about British shipping because British shipping so greatly surpassed all rivals that it asked only to be let alone. Now that other countries are beginning to compete successfully over certain routes, the British ship owners cry out for governmental interference, and the government shows itself ready to adopt heroic measures if necessary to protect the merchant marine. However the new developments may please the British public in general, they only increase the distress of the small ship owners by encouraging the progress of centralization in the sea transportation business.

The Galway Line.—One of the most remarkable ex-

amples of the danger of over-stimulation to shipping enterprise by subsidies was the Galway line. This company contracted in 1860 to carry the British mails from Galway, Scotland to Portland, Boston or New York *via* New Foundland, agreeing to deliver despatches from the United Kingdom to British North America and the United States in six days, casualties excepted. They ordered four new vessels that were to astonish the world by their speed. These vessels proved to be weak and slow. One was lost and two others were disabled. When the Collins Line failed, the Galway people purchased the "Adriatic", the swiftest and strongest vessel then afloat. This was the only vessel which could make the passage in the required six days. Naturally, the company failed completely, involving all the investors in ruin. In this instance the subsidy-enthusiasm did great harm. Men of little or no experience in shipping affairs were tempted to embark in a hazardous venture on the faith that the government would back them and stand any losses they might meet. Instead of encouraging shipping, this subsidy craze discouraged legitimate enterprise.

West Indian and South American Mails. The Royal West India Mail Steam Packet Company is another line that has drawn heavy mail subsidies from the British government. It was established in 1840 and was granted a subsidy (1842) of £240,000 a year for traversing a distance of 684,816 miles.¹ There was no advertisement for bids on this contract or on any subsequent contract made with this company up to 1874. The company was badly managed and during the first year lost £79,790. The government then reduced the mileage to 392,973 miles, leaving the subsidy as be-

¹ Parl. papers, 1849, vol. 12, no. 571.

fore, and exonerated the company from several requirements named in the original contract.¹ This favoritism was entirely unwarranted, for there was not the same necessity for keeping up frequent and regular communications with the British West Indies as in the case of the East Indies. Besides the service could have been secured in all probability at less cost by public letting, though the select committee of 1849 expressed a contrary opinion.² Mr. Lindsay states that in some years the amount paid for carrying the West Indian mails exceeded the sum received for postage by £183,938.³ Besides the service was slow, irregular and generally unsatisfactory.⁴

In 1852 the contract was renewed for a term of eleven years. The subsidy was raised to £270,000 while the mileage was increased to 547,296 sea miles, thus reducing the rate per mile from 12s. 2d. to 9s. 10d. At the same time it was required that the average speed of six knots per hour be increased to nine knots, and that five large new steamships be built.⁵ In 1864 the subsidy was reduced to £172,914 and the speed requirements increased to ten and a half knots per hour.⁶ In 1868 the contract was extended till 1874 with the provision that the government was to receive one-half of all profits above eight per cent.⁷

In 1874 the West Indian mail contract was thrown open to public bidding, and the Royal Mail undertook

¹ Parl. papers, 1852-3, vol. 95, no. 195, app. K; Lindsay, vol. IV, West India mails.

² *Ibid.*, 1849; vol. 12, p. 3.

³ Lindsay, vol. IV, p. 296.

⁴ Parl. papers, 1849, vol. 12, no. 571, pp. 170, 185-8.

⁵ *Ibid.*, 1852-3, vol. 49, no. 318.

⁶ *Ibid.*, 1863, vol. 31, no. 3217.

⁷ *Ibid.*, 1867-8, vol. 41, no. 375.

the same service for £84,750¹,—less than one-half the amount received by the company since 1864, and not much more than one-third the original subvention. They afterwards received an additional £2000 per annum on account of new steamers bnilt. Mr. W. S. Lindsay says :² "There can be no doubt that the original vessels of this company were well adapted for one of the objects government had in view,—the creation of a fleet of a class of large and strongly built merchant-steamers which could be made use of in the event of war." It is more than likely that vessels better adapted for fighting could have been built or purchased more cheaply. The select committee of 1853 condemned the mail vessels built after the plans of the Board of Admiralty as inefficient in war or peace, and this opinion was frequently expressed by the Post Office department. Even the friends of subsidy do not claim that the subsidies to the Royal West India Mail Company helped English commerce and shipping perceptibly.

The later contracts with the company are more favorable to the government. In 1878 the subsidy was reduced to £80,000. In 1890 the service was made fortnightly with a payment of £85,000. Since 1895 the subsidy has been £80,000.

The Pacific Company.—In 1840 the Pacific Steam Navigation Company received a charter from the British Parliament, and a small subsidy for carrying the mails between Central and South American ports. The object of the subsidy was to extend British commerce with the countries of that region. The company's steamers touched at no British ports so there could be no imperialistic reason for the subsidy. The first year

¹ Parl. papers, 1874, vol. 35, no. 166.

² Lindsay, *History of merchant shipping*, vol. IV, p. 302.

the company lost £72,000. It kept up operations, however, with the aid of government and even attained some degree of prosperity; but it increased the number of its ships beyond the needs of trade and the result was depression and loss.¹ The company recovered from this period of depression and is now in a prosperous condition. For years it carried the mails to Brazil and the River Platte in conjunction with the Liverpool, Brazil and the River Platte Company for the sea postage. In 1900 a contract was made whereby the company receives a fixed subsidy of £32,500 for a monthly and bi-monthly service to South America and the Falkland Islands.

The Peninsular and Oriental Line.—The mails to and from Spain and Portugal were formerly carried by government Post Office packet-boats. These boats were slow and very irregular in their service. As early as 1835 the Peninsular Company made a proposal to carry the mails between England and the Peninsula. The service offered was much superior in every respect to that performed by the government packets, and at the same time much cheaper. The government, however, quite properly, decided to advertise for bids. The Peninsular Company was underbid by the British and Foreign Steam Navigation Company, and the contract was awarded to the latter. This company was organized for the purpose of exploiting the mail subsidy, but it was unable to carry out the terms of its contract, so in 1837 a contract was made with the Peninsular Company by which they agreed to carry the mails weekly for £29,600 per annum. Soon after the amount was reduced to £20,500.² Thus the Peninsular Company was engaged

¹ Lindsay, vol. IV, pp. 316, *et seq.*

² Parl. papers, 1852-3, vol. 95, no. 195, and 1851, vol. 21, app. 4.

in carrying the mails for a fixed subvention three years before the Cunard Company. It is to be noticed that the conditions and the manner of contracting were entirely different in the two cases. Mr. Cunard first secured a mail contract by private agreement and afterwards built the steamships necessary to carry out the terms of the contract. The Peninsular Company was an old and firmly established line. It was in a position to compute accurately the costs and profits of its service. This fact in itself would not guarantee the government against exploitation by the company, but by throwing the contract open to public bidding, the government put the service on a really competitive basis, for at that time there were no shipping mergers. It is true that the Peninsular Company possessed certain advantages over any possible rivals by reason of its long possession of the trade; but these advantages were not sufficient to prevent competitors from entering the field.

The East Indian mails were at first carried by vessels of the East India Company exclusively. Later government steam packets were put on between England and Alexandria, Egypt, while the company's vessels continued the service from Suez to Calcutta and Bombay. In 1840 the Peninsular Company contracted to carry the mails between England and Alexandria for £34,200 per annum, agreeing to carry government officers at reduced rates and Admiralty packages free.¹ A few years later (1845) the Peninsular Company became the Peninsular and Oriental Company (commonly known as the P. and O.) and took the contract for carrying the mails between Suez and Calcutta for £115,000 per annum or about 20s. per sea mile traversed.² The

¹ Parl. papers, 1851, vol. 21, no. 73.

² *Ibid.*, 1850, vol. 53, no. 693; 1851, vol. 51, no. 73; 1845, vol. 47, no. 376.

service was soon extended to China with an addition of £45,000 to the yearly subvention, or at the rate of 12s. per mile for the extension. The East India Company still carried the mails between Bombay and Suez, which cost £105,200 per annum, or 31s. 6d. per sea mile. The Parliamentary investigating committee of 1851 reported that the service could be done much better and more cheaply by strictly private enterprise.¹ Just at that time a vessel of the East India Company was lost with a large quantity of the mails. The government then applied to the P. and O. Company, which contracted to perform the service for £24,700 per annum or 6s. 2d. per mile,—a saving of about £80,000 a year with a much more regular and efficient service.

In 1852 the government advertised for bids for an Australian service. The P. and O. offered to give a service to Australia every alternate month in conjunction with a fortnightly service to India for a total of £199,600 per annum, to be reduced by £20,000 on the completion of the railroad across the Isthmus of Suez. The company offered to carry the mails between Point de Galle and Bombay (an annual distance of 21,864 miles) free.² The only other competitor, the Eastern Steam Navigation Company, asked £110,000 per annum to perform a monthly service to India alone, and £166,000, including the service to Australia every alternate month. When reduced to a mileage basis, the P. and O. tender was at the rate of about 6s. 6d. a mile, not counting the line between Point de Galle and Bombay, while the Eastern Company asked about 10s. a mile for the combined India-Australian service. Yet much dissatisfaction was manifested because the contract was let

¹ Parl. papers, 1851, vol. 21.

² *Ibid.*, 1852, vol. 49, no. 249; 1852-3, vol. 95, no. 195.

to the P. and O. and complaints were made of the alleged favoritism shown by the government to the company. No good grounds for these charges are apparent. The company had to fight its way against competition from the beginning. The government was sometimes harsh in holding it to the exact terms of hard contracts. At one time the government refused to relax the conditions of a contract even when the company was in distress on account of a coal famine at Eastern ports. When the company on that account believed it impossible to carry out a portion of its contracts, the government threatened to inflict the penalty of £35,000 for the failure. The price of coal at Eastern ports rose from 18s. 6d. per ton to 80s. per ton and it was difficult to obtain it at all.¹

The complaints of the colonists induced the government to make private contracts, intended to introduce competition with the postal lines maintained by the P. and O. In 1852, a contract was made with the General Screw Steam Company to convey the mails to Calcutta by way of the Cape of Good Hope for seven years at an average of £42,144 a year. In the same year, the Royal Australian Steam Navigation Company contracted to carry the mail six times a year to Australia for £26,000. Both these companies failed to carry out their agreements, and in the following year both contracts were annulled.² The severity of the government in enforcing its contracts with the P. and O. Company probably tended to keep up the cost on the Eastern routes. New companies were not attracted to compete,

¹ Parl. papers, 1852-3, vol. 95, no. 195, p. 61. Also Lindsay, vol. IV, p. 391, *et seq.*

² *Ibid.*, 1852-3, vol. 95, no. 195, pp. 32, 33 and 34-36; 1859, vol. 6, Australian and Indian mails; 1855, vol. 51, no. 10.

or if they competed, they failed to carry out their contracts. The P. and O. had to make its bids large enough to cover all possible and extraordinary emergencies. It would probably have been cheaper at first if the government had assumed this insurance against risk by not insisting on absolute penalties for non-performance of service. In the long run the effect was salutary, as it made the steamship company careful to make no offers it was not prepared to carry out, and it prevented the P. and O. Company from falling into the fatal habit of depending on the government subventions to pay dividends. It is true that the rate of compensation to the P. and O. Company for the first Indian service, whether computed on the basis of the total distance traversed or the weight of mails carried was greater than the rate first paid to the Cunard Company. The route from Suez to Calcutta was, however, nearly twice as long as the Liverpool-Halifax route; it was necessary to carry more coal relatively to the cargo; coal cost much more in Eastern ports; the profits on freight business were not so large; the Indian mails were vastly more important than the Canadian mails, and there was only the miserable service rendered by the East India Company between Bombay and Suez, while on the Atlantic, the American sailing clippers furnished the best mail service then known, between American and British ports. In addition, the P. and O. contracted to carry government officers and Admiralty packages free, which the Cunard Company did not. Very soon the rate of compensation was reduced far below that received by the Cunard Company.

A new and enlarged contract went into effect in 1853,¹ providing heavy penalties for failures and delays. The

¹ Parl. papers, 1852-3, vol. 95, no. 195, p. 15.

Admiralty was given the power to survey the company's ships and order alterations at the company's cost. At any time the government had the right to charter or buy the vessels at appraised valuations. During the Crimean War (1853-56), the British government chartered eleven of the P. and O. vessels for transports. This so crippled their fleet that they were obliged to give up the service from Australia to Singapore, thereby losing £17,475 of subvention.¹ The abandonment of this line caused great dissatisfaction among the colonists and the English merchants, who declared the loss of subsidy was more than offset by the profits made in the transport business. This was no doubt the fact, but the line was obliged to put its vessels at the service of the government. Even if this were not the case, the line could not be shut out from following the course offering the largest profits, simply because it held mail contracts.

After the Crimean War, the P. and O. again offered (1855), to carry the Australian mails, this time for an annual subsidy of £84,000. The offer was peremptorily refused. The Australian colonists began to feel their importance and demanded an independent mail service. Accordingly the colonial legislatures voted liberal grants for a "monthly, direct, and independent service" between Suez and Australia. The conditions as prescribed by the home government were very severe. Two tenders were considered. The P. and O. offered to take the contract for £140,000, if the severe progressive penalty clauses were omitted. The European and Australian Steam Navigation Company accepted the whole contract for £185,000 per annum.² The latter offer was

¹ Lindsay, vol. IV, p. 395.

² Parl. papers, 1857-8, vol. 41, no. 19; 1861, vol. 12, no. 463, app. no. 1.

accepted, although there were two other bids of £161,000 and £130,000 respectively, for the identical service by responsible ship owners.¹

So large a subsidy for such a comparatively unimportant service created surprise. The contract was to go into effect in 1857. When the time came the company had no ships ready and was subjected to the penalty of £100 per day until they could furnish a suitable vessel. When they did begin the service their vessels either broke down or proved unseaworthy. In one year this ill-fated company, through losses and injuries to ships and penalties for non-fulfilment of its contract, lost its entire capital of £400,000 besides contracting a debt of £270,000. Added to all this was the loss on docks and plant, estimated at £370,000.² The Royal West Indian Mail then attempted to perform the service under certain conditions, but failed.³

The next year (1858), the government advertised for new tenders. The P. and O. offered to do the service for £180,000; the Royal Mail for £250,000. As the offers were for exactly the same service, the bid of the P. and O. was, of course accepted.⁴ The subsidy of £180,000 included £24,000 for the service between Mauritius and Aden. This line was soon abandoned, and a new contract for the Australian service was drawn up (1861), providing an annual subsidy of £134,672.⁵ When the contract expired in 1866, the P. and O. offered to make twelve trips a year for

¹ Parl. papers, 1856, vol. 51, no. 359.

² *Ibid.*, 1857-8, vol. 41, no. 19, p. 14 and no. 144; also Lindsay, vol. IV, pp. 396-401.

³ *Ibid.*, 1859, vol. 6, p. 14, *et seq.*

⁴ *Ibid.*, 1859, vol. 6.

⁵ *Ibid.*, 1861, vol. 35, no. 285.

£120,000, or twenty-four for £170,000 per annum, at an average speed of ten knots an hour.

In 1867 a new contract for the East India service was made, whereby the P. and O. received a yearly subsidy of at least £400,000 for traversing a distance of over 1,313,000 sea miles, or at the rate of about 6s. 1d. per mile. It was provided that if the sum available for dividends should fall short of £160,000, (six per cent on the capital stock), the government should make good the deficiency, provided that the total sum payable in any one year should not exceed £500,000.¹ During the last fourteen months of this contract the government paid the maximum amount of £500,000 a year,² making the total for the East Indian and Australian services £670,000.

In 1870 a revised contract for the East India service was agreed to, by which the company received £450,000 per annum for traversing a distance of nearly 1,745,000 miles, or at the rate of about 5s. 2d. per mile.³ Four years later the amount was reduced to £430,000 by reason of the completion of the Suez canal. At the same time the service was improved in speed.⁴

Before this contract expired in 1880, complaints as to the slowness and excessive cost of the service began to be heard from the East Indian merchants. On March 1, 1878, a public meeting was held in Bombay to consider the subject of postal communication between England and India. A memorial was presented and unanimously adopted asking for a speedier mail service and asserting the right of the colonists to be heard be-

¹ Parl. papers, 1867-8, vol. 41, no. (3960), p. 167.

² *Ibid.*, 1870, vol. 41, no. 424.

³ *Ibid.*, 1870, vol. 41, no. 424.

⁴ *Ibid.*, 1874, vol. 35, no. 351.

fore contracts should be let. In the discussion it was shown that, while the P. and O. had more than fulfilled its contracts, the speed of its vessels was inferior to that of vessels belonging to independent unsubsidized lines. It was asserted that neither the postal service nor political necessity could justify the excessive expenditure made. It was shown that in the case of war the great bulk of the transportation for the government was done by unsubsidized lines.¹

When the routes were advertised (1879) four bidders competed. The postmaster general thought the offers of Mr. Holt of Liverpool most advantageous, and recommended the acceptance of his offer to give a speed of eleven knots between Brindisi and Alexandria, Suez and Bombay, and ten knots between Bombay and China, for a subsidy of £336,500 a year. The P. and O. Company asked £370,000 for this service with the difference that they offered a speed of ten and a half knots for a direct service from Suez to China. Contrary to the recommendations of the postmaster general, the Lords of the Treasury accepted the offer of the P. and O. Company.² The rate per mile remained practically as before, the saving of £60,000 being effected by the abandonment of the service from Southampton to Alexandria. Later on the subsidy was reduced to £360,000. In 1887 the routes were again advertised. Mr. Holt of the Ocean Steamship Company bid against the subsidized line and again he was unsuccessful. The P. and O. secured the contract for ten years, with a subsidy of £265,000 a year, giving a speed of thirteen

¹ Parl. papers, 1878-9, vol. 42, no. 103, esp. Speech by Mr. Kittridge, pp. 9-13.

² *Ibid.*, 1878-9, vol. 42, no. 103.

and a half knots for the Indian service and eleven knots for the China service.¹

In the meantime, the Australian colonists complained vigorously of the inadequate and costly service furnished them by the contract of 1866. The home government took no action until 1879 when a new contract was made with the P. and O. whereby the Company agreed to perform a fortnightly service during ten years between Point de Galle and Melbourne for £85,000 per annum. Since 1868 the company had been making thirteen trips a year for which it received £130,000.² The service was thus doubled while the cost was reduced by £45,000.³ This economy, due to the activity of the Australian government which negotiated the contract, was made possible by the competition of rival lines, especially the Orient Steamship Company. When the contract expired in 1888, the Australian service was changed from a fortnightly service connecting with the China line to a weekly service direct from Brindisi and Naples to Adelaide, Brisbane, and Melbourne, giving an acceleration of three days in time. The service was divided between the P. and O. and the Orient Steamship companies, each receiving £85,000 per annum for sailing on alternating weeks.⁴ The contracts were renewed until 1898 when the contract for the East India service expired. The P. and O. and the Orient lines again secured the contracts which are made for seven years. The P. and O. undertook the weekly service between Brindisi and Bombay and the fortnightly services via Colombo to and from Shanghai and Australia

¹ Parl. papers, 1887, vol. 49, no. 87.

² *Ibid.*, 1868-9, vol. 34, no. 227.

³ *Ibid.*, 1878-9, vol. 42, no. 2361.

⁴ *Ibid.*, 1890, vol. 41, no. 112.

for a total of £330,000 a year. At the same time the speed on the Bombay line was increased from 12½ knots to 14½ knots, on the China line from 11.2 to 13.3 knots, on the Australian line from 12.13 to 14 knots. The Orient Company took the fortnightly service between Brindisi and Australia via Colombo for the former subsidy (£85,000), but reduced the transit time from 34 days, 18 hours to 31 days, 6 hours.¹ The contract price is now 4s. 6d. per mile on the India-China lines and 5s. 5d. per mile on the Australian lines.

It is a disputed question whether the government could have secured the eastern mail service for a less expenditure. Certain it is that the service rendered by the P. and O. was much less expensive and much more efficient than that rendered by either the East India Company or the government Post Office packets. The attitude of the government at first was hostile rather than friendly, and by throwing the contracts open to public bidding it attempted to let them on a competitive basis. Although the P. and O. had no successful rivals, yet several contracts were taken from them by other bidders. Even the unsuccessful competition of lines inferior in strength and resources prevented the possibility of extravagant payments and the stand-still policy of the Cunard line. If at times the subventions were exorbitant, we must consider the urgent necessity for the government to keep up regular communications with the distant eastern colonies, especially with India; the tremendous difficulties to be overcome; and the onerous terms of the contracts. The government secured the services it needed more cheaply through the P. and O. than in any other way it ever tried.

¹ Parl. papers, 1897, vol. 52, no. 259.

The letting of the mail contracts to private undertakers undoubtedly gave some impetus to shipping, but the benefits were of necessity absorbed for the most part by the one company securing the contracts. This is unavoidable, and, if it be an evil, it was at least in this case a lesser evil than to trust the mails to the irregular service of non-contract vessels. The profits from the mail contracts, of course, increased the power of the company and are partly responsible for the fact that it was for long the only great English steamship line in Eastern waters. But this does not mean that it had a monopoly of transportation. Sailing vessels and tramp steamers kept down freights in the earlier days, and the competition of English and foreign lines in more recent years has compelled the company to be progressive. It has been active in opening up new fields of commerce and extending old ones, but this would have come about eventually without subsidies. The mail contracts for the most part were merely an extension of legitimate business. The Glen Line, City Line and Ocean Steamship Line to China, Calcutta and Bombay, respectively, grew up alongside of the P. and O. and beat the P. and O. boats for a time.¹ Competition and not mail contracts compelled the company to build larger, swifter and better steamers. The subsidies did not call the P. and O. into being. The utmost that can be said is that they have worked no permanent harm, and, perhaps, have helped to develop commerce in the East Indies somewhat earlier than would have been the case without subsidies.

Comparisons.—For the year 1899–1900, the British government paid out in mail subventions £759,433.²

¹ Parl. papers, 1878–9, vol. 42, no. 103.

² A part of the subvention for the Australian service was paid by the colonial government, but the amount is not given.

TABLE I

SERVICE.	FREQUENCY.	CONTRACTORS.	Subsidy in 1000 lbs.	Miles run per year in 1000 miles	Mileage rate.
1. Dover to Calais and back	Daily both ways.	London, Chatham & Dover Ry. Co.	£ 25
2. Brindisi to Bombay and back <i>via</i> Suez Canal	Weekly both ways.	} P. & O. Co. Orient Co.	330	1220	5s. 5d.
3. Brindisi to Shanghai and back	Fortnightly both ways.				
4. Brindisi to Adelaide and back	Fortnightly both ways.				
5. Naples to Adelaide and back	Fortnightly both ways.				
6. Halifax to Vancouver by rail. Thence to Hongkong by sea, both ways	Monthly both ways.	Canadian Pacific Co. Royal Mail Co. British India Co. Pacific Co. Union & Castle Mail. Cunard and White Star Line.	85	390	4s. 4d.
7. Southampton to West Indies and back	Fortnightly both ways.				
8. Aden to Zanzibar and back	Monthly both ways.				
9. South and Central Am. and Falkland Isl. 10. Southampton to S. Africa and back 1	Fortnightly & monthly Weekly both ways.				
11. Southampton to New York outward ¹	Bi-weekly.		135	650	3s. 6d.
			113 ²	300	7s. 7d.

¹ Colonial contract.² Payment depends on weight of mails carried.

The colonies of North America, New Zealand, and South Africa paid £188,621 in addition to the amounts expended by the home government. The admiralty subventions to reserve merchant cruisers are not fixed amounts. For that year they amounted to £65,000. The sum total paid out by Great Britain and her colonies to merchant shipping was £1,013,054 (\$4,923,442). Table No. I gives statistics of the more important mail lines for the year 1899-1900.

The comparatively high rate paid for the New York service is due to the high speed required and the importance of the service. In table No. II, (for 1898), it will be seen that, on the basis of mails carried, the New York service is much the cheapest.

TABLE II

Service.	Weight of letters, books, packages, etc. (Million lbs.)	Rate per lb.
New York (outward).....	2.75	os. 9.8d.
India and China.....	3.4	1s. 5d.
Australia.....	2.9	1s. 2d.
South Africa.....	1.5	1s. 2½d.
West Indies.....	.4	4s. 0d.
Canada to China.....	no data	

A comparison of the subsidized lines with some of the leading unsubsidized lines is of interest. The White Star Line publishes no statements for the public; but it is known that it pays higher dividends than the Cunard line because of its unsurpassed fleet of cargo steamers. The Orient Company paid no dividends in 1898, and it is doubtful if it even met fixed charges. The Leyland Line on the same route as the Cunard, paid a dividend of 11 per cent. The West India and Pacific Steamship Company, over much the same route as the Royal Mail, has been earning 12½ per cent. while the latter has scarcely made a doubtful 5 per cent. Mr. J. W. Root comments; ¹ "So far, then, from subsi-

¹ *Atlan. Mo.*, vol. 85, p. 393.

sidies being an advantage, they appear in some instances, at least, to be positively detrimental to the companies receiving them." Mr. Root has been rather hasty in his conclusions from these very meager statistics of earnings. Small dividends do not necessarily mean a lack of prosperity. On the contrary, it often means the greatest prosperity, the surplus being absorbed in extending and improving the plant. This probably ex-

TABLE III

In 1000 pounds		In 1000 dollars	In 1000 pounds		In 1000 dollars
1840	£170	\$ 829	1872	£1,056	\$5,139
1841	282	1,375	1873	901	4,385
1842	461	2,244	1874	746	3,631
1843	463	2,254	1875	797	3,879
1844	547	2,665	1876	717	3,791
1845	718	3,494	1877	717	3,791
1846	714	3,478	1878	725	5,529
1847	734	3,575	1879	715	3,482
1848	779	3,794	1880	692	3,371
1849	759	3,696	1881	692	3,368
1850	756	3,699	1882	709	3,454
1851	827	4,028	1883	750	3,653
1852	890	4,335	1884	751	3,657
1853	864	4,207	1885	740	3,602
1854	775	3,771	1886	730	3,555
1855	743	3,619	1887	639	3,112
1856	759	3,695	1888	644	3,134
1857	826	4,023	1889	826	4,024
1858	847	4,126	1890	910	4,429
1859	844	4,111	1891	930	4,527
1860	932	4,537	1892	950	4,626
1861	1,002	4,879	1893	936	4,555
1862	837	4,076	1894	975	4,745
1863	900	4,332	1895	961	4,677
1864	796	3,875	1896	977	4,759
1865	817	3,978	1897	1,019	4,959
1866	783	3,814	1898	1,036	5,123
1867	777	3,781	1899	1,013	4,923
1868	1,056	5,142	1900	774	3,764
1869	1,044	5,081			
1870	1,047	5,095			
1871	1,041	5,069			

Total, £48,128 ; — \$283,906.

plains, in part at least, the comparatively low rate of dividends paid by the Cunard Company. In 1900 the Cunard Company paid 12 per cent, and generally it pays as well as other large passenger lines. The Royal Mail pays low dividends because of its unprogressive policy, which may or may not be due to the subventions. The chances are, however, that some mail lines would go into more competent hands, if the mail contracts were let on a strictly business basis.

Table No. III gives the yearly amounts paid out by Great Britain in mail subventions from 1840 to 1900.

FRANCE

FISHING BOUNTIES

France is and ever has been the bounty-giving nation *par excellence*. As early as 1670 the French government gave a bounty varying from four to six livres per ton upon French built vessels. Various bounties for the encouragement of the fisheries, the import of ship-building material, and the export of French commodities in French bottoms were enacted during the 17th and 18th centuries. These laws were of little effect. The encouragement of sea fisheries was begun in a systematic manner by France in the early part of the 17th century, and continues up to the present time. The law of July 31, 1890 provides for a bounty (*prime d'armement*) of fifteen, thirty, and fifty francs per man to fishing vessels, according to the kind of fisheries and the place where carried on. Besides these direct bounties, the fishing industry enjoys indirect bounties in the form of *primes d'importation* on fish. The official

statistics show a steady increase in the amount of the bounties since the passage of this law. In 1891 the *primes d'armement* were 592,400 francs and the bounties on import and export amounted to 2,249,275 francs. In 1900 the sums were 635,365 francs and 4,913,803 francs respectively. These figures indicate a very considerable growth in the industry, for which the law is no doubt in some measure responsible. It would require a book to give the history and results of the fishing bounties since 1850, but their importance in the development of the merchant marine is too slight to merit further discussion in this brief study.

THE MERCHANT MARINE

The Law of 1881. The premiums to the merchant marine proper date from the law of January 29, 1881.¹ Previous to that time the French government had attempted to protect its merchant marine by imposing discriminating duties on goods carried by foreign ships. These laws created so much friction with foreign governments that they were repealed in 1873, less than a year after their enactment. The law of 1881 granted a bounty on construction of 10 francs (\$1.93) per gross ton on wooden ships of less than 200 tons; on wooden ships of more than 200 tons, 20 fr. (\$3.86) per gross ton; on composite ships (ships with iron or steel beams and wooden sides), 40 fr. (\$7.72) per gross ton; on iron or steel ships, 60 fr. (\$11.58) per gross ton; on engines and boilers, 12 fr. (\$2.32) per 100 kilograms (220.46 lbs.) For renewing boilers the bounty was 8 fr. (\$1.544) per 100 kilograms of new material used, and any modifica-

¹ For the text of the law, see Documents parlementaire, 1881, and the Bulletin de statistique et de législation comparée, vol. 9 (1881), pp. 81-83.

tion of a ship increasing its tonnage entitled the owner to a bounty at the above rates on the net increase of tonnage.

The navigation bounties were as follows. To owners of ships constructed in France was given a bounty of 1.5 fr. (29 cents) per net ton for every 1000 sea-miles sailed for the first year of a vessel's life. The rate of the navigation bounty diminished 7.5 centimes (1.4) for wooden vessels and 5 centimes (1 cent) for iron or steel vessels each year until the entire bounty was suppressed. Foreign built vessels, owned by Frenchmen and admitted to French registry were entitled to one-half the navigation bounty, while French built steamers constructed on plans approved by the navy department were entitled to fifteen per cent premium above the ordinary rates.¹ The law was enacted for a period of ten years.

The construction bounties granted by this law were given "as compensation for the increased cost which the customs tariff imposes on ship-builders" in consequence of the repeal of the law granting free import of materials of construction. The navigation bounties were granted "by way of compensation for the obligations imposed on the merchant marine for recruiting and assisting the navy." These alleged reasons for the bounties were mere word formulas intended to give them the appearance of payments for services or drawbacks on duties. In fact they were gifts from the public treasury to private individuals for which the government received no direct return.

¹ The law of 1881 was first proposed in the Chamber of Deputies November 27, 1877. During 1879 and 1880 the bill was much discussed in the Chamber and was adopted July 10, 1880. It was transmitted to the Senate July 15, where it was deliberated and passed with slight amendments on January 27, 1881. The amended bill was finally adopted by the Chamber, Jan. 29, 1881.

Table No. IV gives the tonnage built in French yards and the amount purchased abroad for nine years before and ten years after the passage of the act of 1881.

TABLE IV
(AMOUNTS IN 1000 GROSS TONS)

Year	Built at home	Purchased abroad	Year	Built at home	Purchased abroad
1872-----	50	34	1882-----	56	78
1873-----	39	17	1883-----	35	49
1874-----	34	17	1884-----	57	20
1875-----	37	20	1885-----	15	9
1876-----	32	15	1886-----	27	14
1877-----	26	12	1887-----	15	14
1878-----	21	19	1888-----	31	26
1879-----	24	16	1889-----	32	24
1880-----	12	34	1890-----	24	50
1881-----	20	34			

A summary of the navigation bounties from 1882 to 1890 inclusive, compiled from information given in the United States consular reports, is given below, in Table No. V.

TABLE V
FRENCH BUILT

Year	Vessels	Miles (In millions)	Bounty (In 1,000,000 francs)
1882-----	543	10.3	5.6
1883-----	493	9.5	6.7
1884-----	492	8.9	7.0
1885-----	442	7.8	6.2
1886-----	400	6.7	6.2
1887-----	393	7.0	6.8
1888-----	360	6.4	6.6
1889-----	326	6.0	6.7
1890-----	316	5.5	7.1

FOREIGN BUILT

Year	Vessels	Miles (In millions)	Bounty (In 1,000,000 francs)	Total bounties (In 1,000,000 francs)
1882-----	28	.6	.8	6.4
1883-----	48	1.3	1.7	8.4
1884-----	62	1.4	1.5	8.5
1885-----	68	1.5	1.3	7.5
1886-----	64	1.4	1.3	7.5
1887-----	65	1.4	1.3	8.2
1888-----	81	1.5	1.5	8.1
1889-----	89	1.9	1.6	8.4
1890-----	115	1.3	1.9	8.0

We learn from the official statistics of French built ships earning navigation premiums that, in the period from 1882 to 1890, iron or steel tonnage increased from 159,714 tons to 190,821 tons, gross tonnage; the distance traversed increased from 3,278,924 to 3,542,767 nautical miles; and the premiums increased from 3,831,307 fr. to 6,322,853 fr.; wooden or composite tonnage declined from 150,233 tons to 57,068 tons gross; the miles sailed decreased from 7,039,942 to 2,524,549 nautical miles; and the premium declined from 1,784,905 fr. to 468,575 fr. During the same period foreign built iron or steel tonnage earning subsidy increased from 43,787 tons to 91,170 tons gross; distance traversed increased from 599,022 to 1,564,368 nautical miles; and the navigation premiums increased from 836,584 fr. to 1,666,081 fr.; wooden or composite tonnage earning subsidy increased from 1220 to 9799 tons gross,—an insignificant amount, but very suggestive in face of the very decided decline in French tonnage of this description. It is noteworthy that with the very considerable construction bounties and the large navigation bounties, the navigation of domestic built wooden vessels continued to decrease so rapidly. It is even more remarkable that, with double the navigation premium and a large construction bounty besides, the domestic-built iron and steel tonnage (mostly steamers) should increase much less rapidly than foreign built tonnage of like kind.

M. Siegfried, minister of marine, in his report of 1893, says: "So far as French ship-building is concerned, the results of the act of 1881 have not been satisfactory. . . . It is true that we have constructed in France 307,626 tons of iron and steel steamers, but from this should be deducted 124,000 tons for steamships

belonging to subsidized government mail lines, the construction of which in France is obligatory. . . . On the average we estimate that an ordinary steamship in England costs 300 fr. (\$57.90) per gross ton, while the same vessels costs 420 fr. (\$81.06) in France. Besides this difference, English ship-builders have numerous advantages in the magnitude of their plants, the large number of vessels they build, often from the same model, and the shorter time for construction than is required in France. These reasons show why the act of 1881 has given insufficient results, but I hasten to say that without this act our ship-yards would have completely disappeared. Our average annual expenditure of 2,679,766 francs for the last ten years has not been wasted; it has merely been insufficient. Until French ship-yards shall have grown and secured large and regular contracts, it is impossible for them to build on equal terms with foreign yards. The latter and especially British yards obtain their raw materials on much more advantageous terms; indeed, at the moment steel and iron plates cost in England 15 francs per 100 kilograms, against 23 and 25 francs in France, while the price of their coal is much below ours.

Undoubtedly labor is much cheaper in France, where fitters (*ajusteurs*) and riveters (*forgerons*) are paid from 5 to 6 francs (\$0.96½ to \$1.158) a day, while in England they earn an average of 12 to 15 francs (\$2.316 to \$2.895), but the British workman, usually paid by the piece, turns out a large amount of work, and thus by efficiency compensates in great measure for the difference in wages. Finally general expenses which are an important element in cost of naval construction, are much less in England. . . . We estimate that general expenses are one-half in England

what they are in France. Competition on equal terms is thus impossible. Experience shows that the construction bounty of 60 fr. (\$11.58) per ton under the law of 1881, even with the aid of a large navigation bounty for vessels built in France, has been insufficient."

With regard to the navigation premiums, Mr. Siegfried cheerfully remarks, "So far as navigation is concerned it can be affirmed that the results of the bounty act of 1881, without being very great, have been satisfactory." He noted that in 1881, besides mail-contract steamships, France had 47 steamers of 72,985 gross tons, and in 1891 she had 168 steamers of 380,433 gross tons. But of this amount 332,627 tons of large iron and steel steamers were purchased abroad.

Table No. VI contains the statistics as complete as could be obtained of the amounts paid out under the act of 1881, in construction and navigation bounties. The figures were taken from the *Bulletin de statistique et de législation comparée* and from various Reports of the U. S. commissioner of navigation. The author expended much time and labor in a fruitless attempt to reconcile the figures given by the various official publications of France, but was compelled to give it up as hopeless. The amounts given are in any case nearly correct and give a good idea of the amount expended by France under this law.

Although the law of 1881 undoubtedly did increase construction in French yards and navigation under the French flag, the results, on the whole, were decidedly unsatisfactory. The expenditure of 89¼ million francs in navigation bounties and 31½ million francs in construction bounties during the twelve years' life of the act increased the merchant tonnage, no doubt; but it so pauperized the shipping industry that it became the

TABLE VI

	Tonnage constructed (in 1000 tons)			Total construction premiums including sums paid for engines and boilers
	Under 200 tons Tons	Wood Over 200 tons Tons	Iron Tons	
1881-----	7.8	.8	9.7	.8
1882-----	8.6	1.6	58.1	4.4
1883-----	7.9	.8	38.4	3.1
1884-----	9.5	2.3	54.6	4.4
1885-----	6.5	2.7	11.5	1.1
1886-----	7.4	1.1	31.7	3.0
1887-----	5.2	.7	15.6	1.4
1888-----	7.9	.4	24.4	2.2
1889-----	6.4	.7	35.5	3.0
(²) 1890-----	---	---	---	2.7
1891-----	---	---	---	2.8
1892-----	---	---	---	2.0
Total,				31.4

	Navigation premiums (in 1,000,000 francs)			Total construction and navigation premiums
	Amounts paid to French built ships	Amounts paid to foreign built ships	Total navigation premiums (¹)	
1881-----	2.8	.1	3.0	3.8
1882-----	5.6	.8	6.4	10.9
1883-----	6.7	1.	8.4	11.6
1884-----	7.0	1.	8.5	13.0
1885-----	6.2	1.	7.5	8.6
1886-----	6.2	1.	7.5	10.5
1887-----	6.8	1.	8.2	9.6
1888-----	6.6	1.	8.1	10.4
1889-----	6.7	1.	8.4	11.5
1890-----	---	---	8.0	10.8
1891-----	---	---	7.3	10.1
1892-----	---	---	7.2	9.2
Total,			89.2	140.7

Compiled from the *Bulletin de statistique et de législation comparée*, vol. XXIX (1891), p. 388 ff.

¹The figures in this column are not the sum of the figures in the two preceding columns. How the discrepancy arises is not explained by the French statistics.

²The figures for the last three years were taken from the Reports of the U. S. commissioner of navigation and may not exactly agree with some French official figures. The difference is slight, however.

more helpless and needy, the more it was helped and the larger it grew. Professor F. H. Giddings says:¹ "All modern experience of poor relief is an overwhelming demonstration that any community can have all the pauperism and criminality that it cares to pay for". The truth of this terse statement is not at all weakened if the pauper chances to build or own ships. It has been said that it was necessary for France to have a large merchant marine for nationalistic reasons, and that the subsidies accomplished this end. Nevertheless it must be admitted that the industry was pauperized. The utility, as a pillar of the state, of an industry which depends on subsidies for its very life, may well be questioned.

"The Society for the defense of commerce" declared that the law of 1881 would have resulted most happily had it not been limited to ten years.² Doubting its renewal, ship-owners ceased some years before its expiration to increase their fleets. The owners of old worn out wooden sailing ships were especially clamorous for a revision of the law whereby they could be benefited. They argued that sailing ships, being much slower than steamers, should therefore receive correspondingly higher mileage subsidies in order to compete on equal terms with steamers. It requires a mind well schooled in the subtleties of protectionist dialectics to appreciate the force of this profound argument for maintaining obsolete and inefficient methods of production at public expense.

~ *The Law of 1893.* To meet the demands of certain ship-owners, a new law was enacted on January 30,

¹ Principles of sociology (1902), p. 130.

² The law was extended in 1891 for two years, making twelve years in all.

1893.¹ The new law cut off the premiums to foreign built ships, and provided the following premiums for ships of French registry.

Title II Maritime construction

Art. 2. In compensation for the tariff charges imposed upon the builders of sea-going ships, the following allowances are made to them per ton, gross :

For steam or sailing ships of iron or steel, 65 francs (\$12.54).

For wooden ships of 150 tons or more, 40 francs (\$7.72).

For wooden ships of less than 150 tons, 30 francs (\$5.79).

Art. 3. In compensation for the same charges, the following allowances are made to the builders of machines.

For engines, boilers, auxilliary machinery, etc., 15 francs (\$2.995) per 100 kilograms (220.46 lbs.). This bounty shall also be extended to new parts of engines, etc., supplied during the life of the ship. When boilers are changed the bounty shall be 15 francs per 100 kilograms if the new boilers are of French construction.

Title III Maritime navigation

Art. 5. By way of compensation for the burden imposed upon the merchant marine as an instrument for recruiting the military marine, a premium is accorded upon navigation of all ships of French construction of more than 80 tons for sailing vessels, and 100 tons gross for steamers. The premium will be payable during ten

¹ For the text of the law, see the *Documents parlementaires* for 1893 and *Bulletin de statistique et de législation comparée*, vol. 33 (1893), pp. 111-118.

years to all French built ships engaged in making long voyages (*navigation au long cours*) and in international coasting (*cabotage international*).¹ Ships engaged in French coasting trade, fishing vessels, lines subsidized by the state, and pleasure boats are expressly excluded from receiving the premium.

Art. 6. There shall be no bounty to foreign built vessels.

The bounty to French built vessels shall be based on gross tonnage per 1000 miles sailed at the following rates:

For steam vessels, 1.10 fr. (21.23 cents) with an annual reduction of 6 centimes (1.158 cents) in the case of wooden ships, and 4 centimes (0.772 cents) in the case of iron and steel vessels.

For sailing vessels, 1.70 fr. (32.81 cents) with an annual reduction of 8 centimes (1.54 cents) for wooden and 6 centimes (1.158 cents) for iron and steel vessels. Vessels engaged in *cabotage international* shall receive two-thirds of the above rates.

Art. 7. Steam vessels, built according to plans approved by the naval department shall receive twenty-five per cent additional bounty.

Merchant vessels receiving subsidy may be impressed in case of war.

¹ *Navigation au long cours*, referred to in the various subsidy acts of France, includes voyages beyond the following limits; 30° north latitude, 72° north latitude, 15° west of Paris meridian, and 44° east of Paris meridian. That is, beyond ports of the Mediterranean, North Africa, and Europe below the Arctic Circle. *Cabotage international* includes voyages within the above limits, between French ports, including those of Algeria, and foreign ports; also between foreign ports. *Cabotage français* includes the ports of Algeria, and recently those of Madagascar.

The master of any subsidized vessel must carry any dispatches or mails for the government free of charge.¹

Table No. VII gives the statistics as completely as could be obtained of the amounts paid out in construction and navigation bounties under the Act of 1893. The figures were compiled from the *Bulletin de Statistique et de législation comparée*, vol. L (1901), p. 513 ff.

The first effect of the law of 1893 was greatly to increase the already heavy burden of subsidies pressing down upon the French people. It soon became evident that in spite of the increased expenditure, or because of it, the marine was not prospering. In the United States special consular reports, vol. 18 (1900), p. 36, Mr. Robert Skinner, American consul at Marseilles, says of the effects of this law: "Its effect was to divide the interests of ship-owners and ship-builders. The former, at first disposed to give orders to domestic builders, found the latter constantly increasing their prices until the point was reached where the builders were accused of calculating the amount of premium which proposed constructions would command and adding that amount to their own cost price, thus absorbing the premium for navigation and the one for construction. At this time France has but three considerable shipbuilding companies. . . . It is freely said that the three companies named are virtually agreed as to prices, and have

¹The law of 1893 was introduced into the Chamber of Deputies January 11, 1893. (See Doc. parl. No. 1868, Journal Officiel, p. 3078). The report of M. Siegried, May 28, 1892, (Doc. parl. No. 2118, J. O., p. 1090), Supplementary report, July 7, 1892, (Doc. parl. No. 2298, J. O., p. 1564). Discussion, January 14 and 16, 1893, (Débats parlementaires, J. O., p. 23 and 49). Adoption, January 18, 1893 (Déb. parl. J. O., p. 87). Transmission to the senate, January 19, 1893 (Doc. parl. No. 13, J. O., p. 77). Report of M. Molnet, January 21, 1893 (Doc. parl. No. 19, J. O., p. —). Discussion January 26, 1893 (Déb. parl., J. O., p. 95). Adoption January 27, 1893 (Déb. parl., J. O., p. 114). Promulgation, January 31, 1893 (J. O., p. 545).

TABLE VII

	Premiums on construction (in 1000 francs)		Engines boilers and renewals of the same (15 fr per 100 kgs)	Total premium on con- struction
	Wooden vessels less than 150 tons (30 fr. per ton)	Iron vessels more than 150 tons (40 fr. per ton)		
1893-----	283	128	1164	2112
1894-----	263	123	887	2089
1895-----	316	117	1325	2800
1896-----	336	113	2631	4106
1897-----	379	188	3711	5145
1898-----	279	169	2928	4613
1899-----	230	186	5403	7064
1900-----	249	187	7584	9296
Total....	2339	1214	25,647	37,229

	Premiums on navigation (in 1000 francs)			
	Wooden vessels Sail		Iron vessels Steam	
	French built ¹	Foreign built ²	French built ¹	Foreign built ³
1893-----	196	22	4195	1002
1894-----	344	23	5244	1315
1895-----	298	24	5910	1236
1896-----	231	20	6774	923
1897-----	255	6	7091	866
1898-----	234	2	6600	805
1899-----	255	1	7198	735
1900-----	274	2	6952	631
Total.....	2090	113	49966	7316

	Iron vessels Sail		Total navigation premium ³	Total construction and navigation premium
	French built ¹	Foreign built ²		
1893-----	327	327	6071	8184
1894-----	533	384	7853	9943
1895-----	695	415	8580	11381
1896-----	1223	401	9574	13681
1897-----	2799	404	11332	16478
1898-----	3811	345	11800	16414
1899-----	4722	332	13245	20310
1900-----	7108	319	15287	24584
Total.....	21,131	2929	83,548	120,777

¹ Includes vessels built abroad but registered before Jan. 1, 1881.

² Foreign built vessels which were admitted to French registry before the law of Jan. 30, 1893 became effective.

³ These figures do not include the amounts paid by the state to the "Caisse des invalides de la marine," which average about one-half million fr. yearly.

now put them at prohibitive figures, meantime occupying themselves mainly with the building of war vessels."

Ship-owners complain also of the slowness of French builders, a ship requiring 9 months for completion in England requires 20 months in France. The Society for the defense of commerce urged the passage of a law giving premiums to foreign built ships. "To buy foreign built ships will be to pay to foreigners a tribute much less than the amount we now pay in freight. The freight charges, once paid, are lost forever, while the foreign-built ship diminishes by nothing the national wealth and gives employment to a numerous population."

The worst features of the law of 1893 were the construction bounties given to wooden ships and the navigation bounties given to sailing ships. The statistics of construction in France during three years are as follows: for 1899, total construction 155,674 tons, of which 65,880 tons were war vessels and 89,794 tons merchant vessels; for 1900, total 213,838 tons, war vessels 48,490 tons, merchant ships 165,348 tons; for 1901, total, 232,404 tons, war vessels 54,861 tons, merchant ships 177,543 tons.¹ This seems like very satisfactory progress until we examine the returns a little more in detail. Of the merchant tonnage built in 1901, twenty-three vessels of 6114 tons were wooden sailing ships, 50 of 118,514 tons were iron or steel sailing ships, and only 19 vessels of 52,915 tons were steel steamers. That is, 70 per cent of the total merchant output of French yards was sailing tonnage. In the same year, Germany built 83 steel steamers of 208,734 tons, and only 17 sailing vessels of 8109 tons, while Great Britain built 591 steamers of 1,501,078 tons and only 48 sailing ships of 23,661 tons. The showing for

¹ U. S. consular reports, vol. 69 (1902), p. 102.

1900 is even more telling against France. In that year only 19,894 tons of steel steamers were built in French yards, as against 96,864 tons of sail tonnage. That is, 83 per cent of the merchant tonnage built consisted of sailing ships. In Germany the proportion was 195,518 tons steam, 8813 tons sail (equal to 4.3 per cent of all construction): in England the amounts were 1,432,600 tons steam, and 9871 tons sail (equal to 0.7 per cent of all construction). The enormous disproportion of sail tonnage constructed in France can be ascribed to no cause other than the subsidy act of 1893. If there be justifiable and praiseworthy grounds for subsidy, they are not apparent in this particular instance. As the law of 1881 pauperized French shipping interests, so the law of 1893 utterly demoralized them by grading the premiums in direct proportion to inefficiency. It is noteworthy that in 1901, French ship-owners purchased from English builders thirteen steamers of 20,609 tons, *i. e.*, more than one-fourth the steam tonnage added to the French marine. This condition caused the French ship-builders intense pain. They asserted that the premiums were not large enough to enable them to compete successfully with the English builders, and asked for larger subsidies and the denial of registry to vessels purchased abroad. On the other hand, the ship-owners asked that the bounties be given to foreign built vessels so that they might be delivered out of the hand of the French ship-building monopoly. They complained loudly because the government yielded its claim to exclusive trade privileges with Madagascar as French coasting trade. The owners were also divided among themselves. Owners of steamships complained because of the relatively higher construction bounties and the absolutely higher navigation bounties

accorded to wooden sailing ships. Owners of sailing vessels, though collecting bounties amounting sometimes to twenty-five per cent of their investment, lamented the continued decline of wooden sailing tonnage. Merchants complained because trade declined, and Frenchmen in general complained because the marine continued to decline relatively to the marines of other countries. On only one point were these various antagonistic factions united. They all stood staunchly for subsidy. They differed only as to the division of the spoils.

Almost alone, the French economists have always opposed and still oppose the subsidies in principle and in practice. They go too far perhaps in ascribing the decadence of the merchant marine entirely to the premiums. According to a report of M. Thierry, during the years 1886 to 1896 the English marine increased its steam tonnage by 53 per cent; Germany, by 107 per cent.; Spain, 30 per cent.; Holland, 37 per cent.; Italy, 68 per cent.; Russia, 65 per cent.; Norway, 191 per cent.; Sweden, 64 per cent.; Austria, 60 per cent.; Denmark, 76 per cent.; Portugal, 110 per cent.; Greece, 158 per cent.; Roumania, 7 per cent.; Japan, 231 per cent.; while the French steam tonnage has diminished one per cent. or 5347 tons.¹ In the same volume from which these figures are taken, appear some interesting statistics. A French sailing ship carried a cargo of coal from England to America, brought back a cargo of wheat to England and returned to France in ballast to claim the premium, which amounted to 80,000 fr. (\$15,440). The writer reckons the dividend on a capital of 450,000 fr. (\$86,850) at 22 per cent. Another sailing vessel received 75,000 fr. for a voyage of ten

¹ *Journal des Économistes*, vol. 48 (1901), p. 312).

months, which, according to the writer, on a capital of 500,000 fr. is equivalent to 31 per cent. per annum. (It is not clear how these per cents. are reckoned. Perhaps the writer takes into account the exemptions from tonnage and light dues. The bounties alone are 17.7 per cent. and 18 per cent. per annum of the capitals respectively.)

M. Yves Guyot gives in the same place a *resumé* of the report of one of the leading sail-navigation companies of France, which is put in tabular form in Table No. VIII.

TABLE VIII
(In 1000 francs)

Name of vessels	Capital	Yearly per ct	Total income of the company. <i>Benefices nets (i. e. the total income earned from freights)</i>	
			Premiums	
Charles-Gounod -----	320	25	119	121
General Neumayer --	240	21	157	133
Reine Blanche -----	220	33	133	131
General-Charette ----	280	25	105	87
Jules Verne -----	387	22	60	91
Louis Pasteur -----	418	15	101	79
L'Admiral Troude....	480	24	73	104
Total -----	2346	23 ¹	751	749

¹ Average.

As will be seen, the premiums make up more than one-half the total income of the company, so M. Guyot is entirely right when he says that the French taxpayers pay more than one-half of these extraordinarily large dividends. With such profits for lure it is small wonder that sail tonnage grew so rapidly in comparison to steam tonnage. But for the uninsurable uncertainty of tenure peculiarly characteristic of government bounties, the increase in sail tonnage would undoubtedly have been much greater.

Because the navigation bounties were paid per mile sailed, without reference to cargo, ship-masters fre-

quently sailed around Cape Horn to the western coast of the United States in ballast, returning with cargoes of wheat and collecting enormous bounties for the whole voyage, amounting in some cases to twenty-five per cent. on the capital employed.

In the *Revue Politique et Parlementaire*, vol. 31, p. 409 it is asserted that the statistics for 1900 show a considerable increase in the trade of France, but this increase was carried entirely in foreign ships. "French navigation is, on the contrary, declining, not only relatively, but absolutely." Then follows a statement showing that *cabotage international*, which the bounty law was intended to foster, declined 2 per cent. in the weight of merchandise, and 4 per cent. in tonnage employed since 1898. The statistics of other foreign commerce and commerce with the French colonies show a considerable increase, while the French tonnage entered and cleared declined 2 per cent. The weight of imports carried in French ships increased 8 per cent., but exports declined 1 per cent. The value of merchandise carried in French ships decreased 5 per cent. for imports and 4 per cent. for exports.

The general dissatisfaction with the law of 1893, led to its revision April 10, 1902.¹

The Law of 1902. The first article of the subsidy law of 1902 declares positively that all bounties to foreign-built ships are, and remain abolished. Then, for further emphasis is added "No compensation or protection is (shall be) granted to vessels of foreign construction."

Art. II. As compensation for the charges imposed

¹For the text of the law of 1902, see *Documents parlementaires* for 1902, and the *Bulletin statistique et législation comparée*, vol. 51 (1902), pp. 401-410.

upon merchant vessels by making them practically schools for seamen, who, at any and all times up to the age of 45 years can be drafted into the national navy, a shipping bounty (*compensation d'armement*) with the exceptions enumerated in the following articles, will be paid to all iron or steel foreign-built sea-going steamers of over 100 tons gross register and less than 15 years old engaged in deep sea navigation, which sail under the French flag and belong to French citizens or to joint-stock or other companies fulfilling the conditions of the law.¹ The shipping bounty is reckoned per day while the steamer is in *commission*, and per gross ton as follows: up to 2000 tons gross 5 centimes (0.965 cents); 2000 to 3000 tons, 4 centimes (0.772 cents); 3000 to 4000 tons, 3 centimes (0.579 cents); above 4000 tons, 2 centimes (0.386 cents). The number of days for which bounty will be paid in any one year is limited to three hundred. The shipping bounty will be paid to all French registered vessels until they are 15 years old.

Art. III. In order to develop the maritime industries of France, as a general compensation for the charges imposed upon the merchant navy, and for the excessive cost of vessels built in France, a navigation bounty (*prime de navigation*) with the exceptions named in Art. V. will be paid to all French-built sea-going vessels, sailing under the French flag, over 100 gross tons and less than 15 years old. The bounty is fixed per gross ton for every 1000 sea miles sailed as follows:

(a) For smaller steamers, 1.70 fr. (32.81 cents) for the first year with an annual decrease, beginning with the date of the vessel's registration, of 4 centimes (0.772

¹ The irreconcilable contradiction between Arts. I and II is a reflection of the conflict between the ship-owners, who wanted bounties on foreign-built tonnage, and the ship builders who wanted no such bounties.

cents) during the first period of five years, of 8 centimes (1.544 cents) during the second five year period; and of 16 centimes (3.088 cents) during the third and last five year period. For larger steamers the bounty will be decreased one centime (0.193 cents) per 100 tons or fraction thereof above 3000 tons, provided that the bounty for the first year does not fall below 1.50 fr. (28.95 cents) for vessels not above 7000 tons, nor below 75 centimes (14.475 cents) for vessels above 7000 tons.

(b) For sailing vessels the bounty is 1.70 fr. (32.81 cents) for the first year with an annual decrease of 2 centimes (0.386 cent) during the first five year period; 4 centimes (0.772 cent) during the second; and 8 centimes (1.544 cents) during the third and last period. For sailing vessels above 800 tons gross, the bounty will be decreased 10 centimes (1.93 cents) per 100 tons or fraction thereof above 800 tons, provided that the bounty for the first year does not fall below 50 centimes (9.65 cents) per ton.

Art. IV. Five per cent of the navigation and shipping bounties awarded by this law shall be retained for the benefit of all sailors composing the crews of vessels receiving the bounties, to be divided *pro rata* according to the wages of each.

Art. V. Vessels engaged in *cabotage international* shall receive two-thirds of the navigation bounty or the shipping bounty, provided they carry at least one-third of a full cargo.

Art. VI. French-built vessels *for each voyage* shall have the right to choose between the shipping bounty and the navigation bounty. To obtain the shipping bounty for the maximum of three hundred days, steamers must make during the year a minimum of 35,000 miles if engaged in over-sea trade, or 25,000 miles if

engaged in *cabotage international*. All vessels obtaining French registry after they are seven years old, all vessels receiving other subsidy, all steamers below ten knots speed and several other unimportant classes of vessels are excluded from these subsidies.

Art. VII. The tonnage admitted to the benefits of this law, in excess of the tonnage of vessels registered before the promulgation of the law, is fixed at a maximum of 500,000 tons gross of steamers and 100,000 tons gross of sailing vessels. Of steamers two-fifths only of the maximum 500,000 tons can be foreign-built. Vessels registered after the maximum is reached will be ranked in the order of registry and will receive bounty in turn as other vessels cease to obtain the benefits of the law.

Construction bounties are left as laid down in the law of 1893.

Art. XIII. Sailing vessels for which the owners demand, in execution of article IX the benefits of the law of January 30, 1893, must have carried for at least two-fifths of their voyage, going and returning, merchandise representing in freight tons at least two-thirds of their net tonnage.

Art. XVII. Article II of the law of September 21, 1793, is modified in so far as it relates to the composition of the crews of French vessels as follows: Vessels engaged in *cabotage international* in waters beyond the Suez Canal are required to have only the officers and one, two, or three sailors (according to the number in the crew) of French nationality.¹

¹ The law of 1902 was introduced into the Chamber of Deputies by the minister of commerce November 14, 1899. (Doc. parl., No. 1173). Report of M. Thierry. Nov. 6, 1900, (Doc. parl., No. 1893). Discussion Oct. 28 and 29; Nov. 5, 7, 11, 12, 14, 18, 19, 22, 25, 26 and 28; Dec. 2, 3, 5, 9, 1901 (Deb. parl., J. O., pp. 1980, 2000, 2036, 2061, 2108,

The object of this last provision is to enable French merchantmen to compete on equal terms with English and German ships in the Eastern trade by manning their ships with Lascars and other cheap laborers as other nations do. Aside it may be remarked that the French ships utilized this cheap labor before in violation of the law.

Article II is considered by some to be of great importance, because it provides for bounties to foreign-built steamers, which were suppressed by the law of 1893. When the bounties under this article are compared with those under Article III, it may be doubted whether the ship-owners gained much when they tacked this provision to the bill. A foreign-built steamer of 5000 tons will be entitled only to the shipping bounty (*compensation d'armement*) as follows, per day ;

2000 tons at 5 centimes (0.965 cent)	=	100 francs	=	\$19 30
1000 " " 4 " (0.772 ")	=	40 "	=	7 72
1000 " " 3 " (0.579 ")	=	30 "	=	5 79
1000 " " 2 " (0.386 ")	=	20 "	=	3 86
Total per day				190 francs = \$36 67

For the maximum of 300 days per year the amount is 190 fr. \times 300 = 57,000 fr. (\$11,001.00 which for 15 years, the maximum period of subsidy gives a total of 755,000 fr. or \$165,015.

A French-built steamer of 5000 tons gross will be 2127, 2149, 2206, 2239, 2269, 2328, 2367, 2407, 2467, 2501, 2531, 2585). Adoption, Dec. 10, 1901, (Deb. parl., J. O., p. 2625). Transmission to the senate, Dec. 12, 1901, (Doc. parl., No. 446). Rept. of M. Raynal, Feb. 20, 1902, (Doc. parl., No. 41). Discussion, Feb. 21, 24, 25, 27, 28 ; March 3, 4, 6, 7, 1902, (Deb. parl., J. O., pp. 263, 280, 298, 309, 322, 358, 366, 381, 401). Supplementary rept., Mar. 11, 1902, (Doc. parl., No. 118). Adoption Mar. 13, 1902, (Deb. parl., J. O., p. 431). Return to the chamber of deputies, Mar. 17, 1902, (Doc. parl., No. 3095). Rept. of M. Thierry, Mar. 18, 1902, (Doc. parl., No. 3112). Adoption Mar. 21, 1902, (Deb. parl., J. O., p. 1141). Promulgation, Apr. 10, 1902, J. O., p. 2626.

entitled to a bounty for the first year of 1.50 fr. (28.95 cents) per gross ton per 1000 miles sailed—*i. e.*, 1.70 fr. (32.8 cents), the bounty granted to vessels up to 3000 tons, decreased by one centime per 100 tons for the excess above 3000 tons, in this case 2000 tons. The annual decrease will be 4 centimes for the first five year period, 8 centimes for the second, and 16 centimes for the third. The official distance between Havre and New York is 3171 miles so that, if the vessel made ten voyages per year it would run a distance of 63,420 miles, —a very moderate estimate. Table No. IX gives the amount of subsidy which a steamer of 5000 tons would earn yearly for the fifteen years on the basis of ten voyages per year.

TABLE IX

Subsidy of a 5000 ton French-built steamer under the law of 1902.

Year	Rate per ton per 1000 miles sailed for a steamer of 5000 tons.	Total yearly subsidy for a steamer of 5000 tons making 63,420 miles each year.		
	Francs	(In 1000 francs)	(In 1000 dollars)	
1	1.50	475	91	1st 5 year period 4 centimes de- crease per ton per 1000 miles.
2	1.46	462	89	
3	1.42	450	86	
4	1.38	437	84	
5	1.34	424	82	
6	1.26	399	77	2nd 5 year period 8 centimes de- crease per ton per 1000 miles.
7	1.18	374	72	
8	1.10	348	67	
9	1.02	323	62	
10	0.94	298	57	
11	0.78	247	47	3d 5 year period 16 centimes de- crease per ton per 1000 miles.
12	0.62	196	37	
13	0.46	145	28	
14	0.30	95	18	
15	0.14	44	8	
	14.90	4724	911	

The total bounty for the entire period is nearly six times greater than the maximum amount of subsidy obtainable by a foreign-built vessel of the same size for the

fifteen years,—an absolute excess of 3,969,790 fr. Under the law of 1893, a French-built steamer of 5000 tons making 63,420 miles yearly would have received during fifteen years (supposing the law to have been extended five years), 3,900,330 francs. It will be seen that the bounty protection granted to French-built steamers below 7000 tons is increased not only absolutely, but, in a slight degree, relatively as well. The relative advantages remain practically the same for steamers above 7000 tons. The provisions of the law are so complicated that it is very difficult to make comparisons. It is a curious fact that according to Article III, paragraph 2, steamers above 8400 tons can not receive the navigation premiums for the full period of 15 years, while vessels of 14,500 tons or above can receive the premiums for only 11 years. It is very doubtful if the relative proportion of foreign-built steam tonnage will be appreciably altered by this most curious law. It is pretty likely, however, that the amounts paid out in subsidy will be considerably increased for a time, on account of the higher premiums accorded to French-built steamers, as well as the premiums to steam tonnage purchased abroad.

Not all the bounties in any case will go to the owners of vessels, as 5 per cent will be retained for distribution among the crews, and 6 per cent will be retained as contribution to the marine hospital.

From the standpoint of the state, however, it makes no difference whether it gives the bounty directly to the owner, or pays a portion of his wage bill or other expenses. The 5 per cent bonus to crews is a new scheme, but there is no reason for supposing that it will benefit French sailors any more than the navigation premiums

benefit French navigation. In spite of a long and instructive experience, the French law-makers do not seem to be able to grasp the very palpable fact that a bounty may be and is just as easily and certainly "shifted" as is a tax. The only noticeable difference in the operation of the bounty introduced by this provision will be to increase the cost of administration somewhat by complicating the system and increasing the number of officials.

Vessels engaged in *cabotage international* are more restricted as to bounty-getting capacity, and in this direction the amounts paid out may be somewhat curtailed. The minister of finance thinks that Article VII limiting the increase of tonnage admitted to the benefits of the law to 500,000 tons of steamers and 100,000 tons of sailing vessels will tend to limit the yearly expenditures, but that does not seem probable. It is possible for every vessel in the French merchant marine to draw subsidy to the full amount. The only restriction is that the marine shall not increase above its present tonnage by more than 500,000 tons steam and 100,000 tons sail tonnage,—an event not likely to happen for a long time, unless an entirely new spirit shall take possession of French shipping interests. The minister of finance estimated that the bounties under this law will cost annually 17 to 18 million francs (\$3,281,000 to \$3,474,000), excluding the construction bounties, which remain as before.

It is too early to give statistics illustrating the effects of this last product of the French protectionist legislative genius. It is very likely that a burst of ship-building enthusiasm will keep French yards busy for a while; an over-supply of subsidized ships will force freight rates down somewhat, there will be a waning of

enthusiasm along with declining profits and the French merchant marine will settle back another notch in its long career of decadence. No doubt France could become the greatest ship-building and ship-owning nation in the world if she were able and willing to pay the price; but there are limits to the national income, and the builders and owners are insatiable. The millions now being expended in shipping subsidies are not sufficient to enable France to build and support the luxury of an enormous merchant marine, in the face of unfavorable economic conditions. Besides other nations are quite as able to give subsidies as is France, and, if the French subsidies should grow so large as to threaten seriously the present natural advantages enjoyed by other countries, the latter would no doubt retaliate vigorously. Great Britain herself, as we have seen, is opposed to subsidies only because it is entirely unnecessary for her to pay her subjects to fly the British flag. To France, with her incompetent and pauperized maritime industries, a shipping subsidy "war" could result only in defeat. Such a "war" is not likely to come soon, despite the agitation in England.

POSTAL SUBVENTIONS

Introductory. The subventions paid by France, ostensibly for the furtherance of the mails, are both greater in amount and more influential upon ship-building, navigation, and commerce than are the general premiums upon ship-building and navigation. The history of these payments is long and exceedingly complicated. The conflicting statements made by the different authorities make it impossible to ascertain the facts in many cases. A brief sketch of the more important lines drawing subsidy follows.

Havre to New York, the Antilles and Mexico. In 1857 a contract was made with the Union Maritime Company for a service to New York, Mexico, and the West Indies. No record of any such service previous to 1862 could be found, and the New York service was not established until 1864, when the three services were taken over by the *Compagnie Générale Transatlantique* for a yearly subsidy of 9,300,000 francs (\$1,794,900). The distance to be run every year was 157,968 marine leagues. The services were arranged as follows: for the semi-monthly line between Havre and New York, 55,016 leagues, average speed $11\frac{1}{2}$ knots per hour, subsidy 3,000,000 francs (\$579,000) or 55.83 francs (\$10.77) per league; St. Nazaire to the Antilles, 78,672 leagues, average speed 10 knots; Antilles, Cayenne, Vera Cruz and Aspinwall, 27,080 leagues, at 8 knots. The subsidy for the last two services was fixed at 6,300,000 francs. In 1865 some changes were made in the service and the subsidy was reduced by 1,359,220 francs (\$262,329.46). Many minor modifications in the itineraries and in the subventions were made from time to time. For several years previous to 1873 the services in operation were as given in Table No. X.

An agreement concluded December 16, 1873, increased the number of voyages between New York and Havre to forty and the subsidy to 3,644,000 fr. (\$703,292) making the rate per mile 14.69 fr. (\$2.84). Two years before the expiration of the first concession, the government, by the law of June 24, 1883, was authorized to ask for bids for the postal service to the United States and to the Antilles and Mexico. The *Compagnie Générale Transatlantique* secured both contracts for fifteen years, beginning July 22, 1886. The New York service was made a weekly one, the annual average speed was

TABLE X

	Length of round voyage (in 1000 miles)	Number of trips per year	Distance run yearly (in 1000 nautical miles)
Havre to New York.....	6	26	165
St. Nazaire to Vera Cruz.....	11	12	
Annexed lines.....	4	12	189
St. Nazaire to Aspinwall and an- nexed lines.....	9	12	162
Total.....			516

	Subsidy (in 1000 francs).	(In 1000 dollars).	Rate per mile.
Havre to New York.....	3170 =	611	19.21 fr.= \$3.71
St. Nazaire to Vera Cruz, an- nexed lines.....	3451 =	666	18.21 fr.= \$3.51
St. Nazaire to Aspinwall and annexed lines.....	3074 =	593	18.94 fr.= \$3.66
Total.....	9695 =	1871	18.76 fr.= \$3.62

increased to a minimum of 15 knots and the minimum size of steamers was fixed at 5000 tons. The subsidy was at the same time increased to 5,480,000 fr. (\$1,057,640), making the rate per mile 16.53 $\frac{1}{3}$ fr. (\$3.19). To encourage the company to build larger and faster steamers, a speed bounty was granted by the act above mentioned at the rate of 12 francs (\$2.32) per gross ton for every $\frac{1}{10}$ of a knot made by steamers above the minimum annual average of 15 knots. For example, a steamer of 8000 gross tons, making an average speed of 16 knots on its regular mail contract voyages for the year, would be entitled to a speed premium at the end of the year equal to 12 francs per gross ton for every $\frac{1}{10}$ knot above 15 knots made in its record for the year, or 12 fr. \times 8,000 \times 10 = 960,000 fr. (\$185,280). The total expenditure for speed subsidy was limited to 1,200,000 fr. (\$231,600) per year. Since 1892 the company has been earning the maximum speed subsidy, so that the total subsidy received, barring failures in ser-

vice is 6,440,000 fr. (\$1,242,920) per year or at the rate of 22.47 fr. (\$3.89) per mile.

In 1898 a new agreement was made between the government and the company, whereby the concession terminating July 21, 1901 was extended to July 21, 1911. The company bound itself to construct in French ship-yards three and eventually four new steamers for the New York-Havre service. These steamers must develop a speed on trial of at least 22 knots. One of these steamers was put in commission April 1, 1900, and another July 1, 1900. If on July 1, 1905, it be found that the new steamers have attained a speed ten per cent less than that of the steamers of competing lines, the French company agrees to build another steamer, to be ready April 1, 1908, which shall be fully equal to the best models of ocean mail steamships afloat at that time. The minimum average speed to be attained under the new agreement is fixed at the following rates: from April 1, 1900, 17 knots; from July 1, 1900, 17.5 knots; from April 1, 1903, 18.3 knots; from putting in commission of the fourth new steamer, if necessary, 19 knots. If any vessel exceed the annual average, it shall be entitled to a speed subsidy at the rate of 25 fr. (\$4.825) per gross ton for every one tenth knot in excess. If the speed agreed upon is not attained, the same rate can be exacted by the government from the company as penalty. From July 22, 1901 to July 21, 1911, the amount of the subvention is fixed at 5,000,000 fr. (\$965,000) with a maximum speed bounty of 1,680,000 fr. (\$324,240).

Algeria, Tunis, and Morocco Service.—The law of August 16, 1879 authorized the minister of posts and telegraphs to expend not more than 1,200,000 fr. (\$231,600) per annum for a period of fifteen years to

steamship lines which should be established (1) Between Port Vendres and Algiers ; (2) Algiers and Bona ; (3) Marseilles and Oran ; (4) Port Vendres and Oran ; (5) Marseilles and Philippeville ; (6) Marseilles-Bona and Tunis ; (7) Tunis and Tripoli. It was stipulated that vessels must be not less than 200 tons or 400 tons with a speed of nine, ten, or twelve knots, according to the service.

The *Compagnie Générale Transatlantique* undertook the services for an annual subsidy of 493,500 fr. (\$95,245.50), to continue from July 1, 1880 to June 30, 1895. By an agreement of December 16, 1896, this service is now shared between three steamship companies.—*La Compagnie Générale Transatlantique*, *La Compagnie de Navigation Mixte*, and *La Société Générale de Transports à Vapeur*. The subsidy was increased to 1,600,000 fr. (\$308,800) per year, and the maximum speed bounty was limited to 400,000 fr. (\$77,200). The total amount paid in 1898 for mail subsidy and speed bounty was 1,692,655 fr. (\$326,682).

Corsica.—Under a provisional agreement, the subsidized postal service between France and the Island of Corsica is carried on by the *Compagnie Générale Transatlantique* and the *Compagnie Fraissenet* for an annual subsidy of 355,000 fr. (\$68,515). The subsidy was reduced in 1886 from 375,000 fr. (\$72,375).¹

Mediterranean and Black Sea Lines.—On February 28, 1851, a convention was made for twenty years between the French government and the *Messageries Maritimes Compagnie* stipulating a subsidy of 3,000,000 fr. (\$579,000) a year during the first ten years for a

¹ Much of the data for the French mail lines is contained in special consular reports, vol. 18 (1900), pp. 27-29 ; and consular reports, No. 30 (1883), pp. 610, 611.

service to the principal ports of the Eastern Mediterranean. The subsidy was to be diminished by 100,000 fr. (\$19,300) a year throughout the last ten years of the contract. In January, 1852, the subsidy was increased to 3,076,091 fr. (\$593,685.56). By a convention of May 20, 1857, which by ministerial decree of June 2, 1864, was extended to July 22, 1888, the amount of the subsidy was raised to 4,776,118.40 fr. (\$921,790.85) for a yearly navigation of 188,300 marine leagues, divided into nine different lines, all of them within the Mediterranean Sea. The rate per mile was thus 8.455 fr. (\$1.632). The contract stipulated that the company should have at least fifteen steamers, six of 220 horse power and nine of 160 horse power. (Horse power as here used denotes "nominal" horse power and has no necessary relation to the real or "indicated" horse power.) The extent of this service has since been much curtailed, so that in 1898 the lines from Marseilles to Greece, Turkey, Asia Minor, and Egypt received only 1,351,666 fr. (\$260,872),—an average of 4.542 fr. (0.88) per sea mile for a service maintained at an average speed of 13 knots.

Brazilian Line.—The convention of September 16, 1857, with the *Messageries Maritimes Compagnie* for the postal service to Brazil for a term of twenty years went into effect in 1860. The contract provided an annual subvention of 4,700,000 fr. (\$907,100) for traversing a distance of 101,232 marine leagues, or a rate of 15.476 fr. (\$2.987) per sea mile. The line between Marseilles and Rio Janeiro was suppressed by a convention of April 22, 1861, and the subsidy reduced to 2,306,172 fr. (\$445,091.20). Under the latter agreement the company was to have 10 steamers, 7 of which must possess at least 450 horse power (nominal), and 3

at least 200 horse power each. The speed stipulations called for 9 knots an hour on the line from Bordeaux to Rio Janeiro, and 8 knots on the line from Buenos Ayres. This agreement was afterward extended to 1884.

Indo-China and Japan Line.—On April 22, 1861, an agreement was made between the French government and the *Messageries Maritimes* granting to the company for twenty-one years a subvention of 7,500,000 fr. (\$1,447,500) for the first three years; 7,000,000 fr. (\$1,351,000) for the next three years; 6,500,000 fr. (\$1,254,500) for another three years; 6,000,000 fr. (\$1,158,000) for another three years; 5,500,000 fr. (\$1,061,500) for the following six years; and 5,000,000 fr. (\$965,000) for the last six years of the contract. The service included the principal monthly line between Suez and Saigon, touching at Aden, Point de Galle, Penang, and Singapore. Of the subsidiary lines, all monthly, the first was established between Aden and the islands of Reunion and Mauritius; the second between Point de Galle and Chandernagore, touching at Pondichery, Madras, and Calcutta; the third between Singapore and Batavia; the fourth between Saigon and Manila; the fifth between Saigon and Hongkong. By convention of June 2, 1864, the line from Saigon to Manila was suppressed and in its place was substituted another monthly line from Shanghai to Yokohama. The subsidy was increased by 341,301 fr. (\$65,871.09) a year. The line from Mauritius to Aden was extended to Suez with an increase of 256,631 fr. (\$49,529.78) per annum in the subsidy. The total yearly distance to be run was fixed at 112,194 marine leagues and the total annual subsidy was increased to 7,597,932 fr. (\$1,466,500.88) for the first three years of the new contract (1864-'66.)

By convention of April 6, 1868, the company engaged to prolong the Suez line to Hongkong; to make Hongkong instead of Saigon the point of departure for the subsidiary line to Shanghai; to establish a direct line from Hongkong to Yokohama; to make 26 round voyages instead of 12 on the main line between Suez, Hongkong and Yokohama, and between Hongkong and Shanghai; to increase by one voyage per year the service on all the subsidiary lines. For this increase of about 90,812 marine leagues in the distance to be run every year there was conceded an average subvention of 37.50 fr. (\$7.23¾) per marine league (12.50 fr. per mile), or 3,405,450 fr. (\$657,251.85) a year, payable monthly. The total subvention to which the company's steamers were entitled in 1869, for the Indo-China-Japan services alone was 10,503,383 fr. (\$2,027,152.73). In 1898, for the lines running between Marseilles and Indo-China, China, and Japan, and the branch lines between Colombo and various Indian ports, and between Singapore and Batavia, the amount of subsidy paid was 6,085,032 fr. (\$1,174,411), the rate per marine league being 31 fr., or 10.33½ fr. (\$1.994) per sea mile, and the average speed required, 13 knots on the main line and 11.5 knots on the branch lines.

Australian Line.—A convention made June 25, 1881, which went into effect in October, 1882, stipulated for a subvention of 3,297,216 fr. (\$636,362.69) per year for fifteen years for traversing yearly a distance of 103,038 marine leagues (32 fr. per league) on the Australian service. The minimum average speed limit was placed at 11 knots. In 1898 the subsidy for this service had diminished to 3,107,936 fr. (\$599,832), the rate being 31 fr. (\$5.983) per marine league, while the speed limit had been raised to 14 knots.

A report issued by the *Messageries Maritimes Compagnie* in 1881 stated that in 1879 the income from passenger and freight traffic was 31,603,566 fr. (\$6,099,488.24) while the government subventions amounted to 14,057,392 fr. (\$2,713,076.66); in 1880, the income from passenger and freight traffic was 32,951,719 fr. (\$6,359,681.77), and the amount of the subventions, 14,097,396 fr. (\$2,720,797.43). Thus the subventions formed nearly one-third of the total income of the company. In 1880 the company owned fifty-six steamers, mostly large vessels, having a total of 24,270 horse power (nominal). The distance run by the whole fleet in that year was 1,781,058 nautical miles, of which the obligatory postal service was 1,401,549 $\frac{1}{3}$ miles, optional service, 329,148 $\frac{2}{3}$ miles, and service of particular urgency 54,359 miles.

As nearly as could be ascertained, the total subsidies collected by this company at present are somewhat more than 13,000,000 francs per annum, *i. e.*, about one-half of the entire yearly expenditure of France in so-called postal subventions.

African Lines.—For the line between Marseilles and the east coast of Africa and the Indian Ocean, the amount of subsidy paid in 1898 was 1,924,640 fr. (\$371,456) or 20 fr. (\$3.86) per marine league. The average speed required is 12 knots. The subsidized postal service between Havre and the west coast of Africa is maintained by the *Chargeurs Réunis*, and between Marseilles and the same coast, by the *Compagnie Fraissenet*. The amount of subsidy paid in 1898 to the two companies was 500,850 fr. (\$96,664), the annual average speed required being 9 knots.

Calais-Dover.—Between Calais and Dover, the subsidy paid the northern Railway of France for carrying

the mails was, until 1897, 100,000 fr. (\$19,300) per year. Since that time it has been 250,000 fr. (\$48,250) for a daily service at an average speed of 15 knots.

Table No. XI gives the postal subsidies paid by France from 1860 up to 1900. The figures for the years from 1860 to 1884 are taken from Belloc's "*Les postes francaises*", p. 757, ff.; the remaining figures were gathered from the *Bulletin de statistique* and the *Annuaire statistique*.

TABLE XI

(In 1,000,000 francs)

Year	Postal sub- vention	Year	Postal sub- vention	Year	Postal sub- vention	Year	Postal sub- vention
1860	6	1871	22	1882	24	1893	25
1861	7	1872	26	1883	26	1894	24
1862	10	1873	26	1884	26	1895	25
1863	16	1874	24	1885	26	1896	25
1864	17	1875	24	1886	26	1897	25
1865	20	1876	24	1887	27	1898	26
1866	23	1877	23	1888	25	1899	26
1867	23	1878	23	1889	25	1900	25
1868	23	1879	23	1890	24	1901	--
1869	23	1880	23	1891	25	1902	--
1870	23	1881	23	1892	25	1903	--

From 1893 to 1898, the total additions to the French steam marine were apportioned as follows: steamers less than 1000 tons, 46 of 12,941 tons; subsidized steamers, 6 of 32,219 tons; steamers engaged in trade reserved to French vessels only, 10 of 22,043 tons; total 62 steamers of 67,203 gross tons. On the other hand, the steamers trading in competition with foreign vessels *decreased* by 4 steamers and 242 tons, leaving a net gain of 66,961 tons gross.¹ This would lead to the supposition that the mail subsidies have been more successful than the general subsidies, at least so far as keeping the French flag afloat on the seas is concerned.

¹ See U. S. special consular reports, vol. 18, p. 19.

A priori this seems probable, for the mail subventions are larger in amount and are paid out under definite, long-term contracts for specific objects. The growth of the two most important navigation companies of France from 1891 to 1901 was as follows:²

Messageries Maritimes, 63 steamers of 202,801 tons (1891): 62 steamers of 246,277 tons (1901).

Compagnie Générale Transatlantique, 66 steamers of 174,600 tons (1891): 59 steamers of 183,243 tons (1901).

Total, 129 steamers of 377,401 tons; 121 steamers of 429,520 tons.

During the same time the French steam merchant marine grew from 542 steamers of 848,522 tons, to 679 steamers of 1,068,036 tons. The two subsidized lines possessed nearly 44½ per cent. of the total merchant tonnage of 1891, and only 40.2 per cent. in 1901. This decline in relation to the marine in general was more marked in the case of the *Compagnie Générale Transatlantique* which possessed nearly 20.6 per cent. of all steam tonnage in 1891, and only 17.1 per cent. in 1901, while the relative proportion of the *Messageries* declined from 23.9 per cent. to 23.1 per cent. The greater falling back in the former company is doubtless due to the sharper competition on the North Atlantic and to the absolutely and relatively smaller subventions received. For many years more than half of the total steam tonnage of France has been owned by the four subsidized lines. In 1901, the above two companies and the *Chargeurs Réunis* owned 510,669 tons. These figures illustrate strongly the monopolistic tendency of these special mail subsidies.

² See Jour. stat. soc. of London, 1901; Article, "Shipping subsidies" by B. W. Ginsburg, pp. 483-4.

The mail subventions are supposed to be payments in return for services rendered; the general bounties are admittedly payments in return for inability to render services. As a fact the mail subventions are and must be in part real subsidies to inefficiency. The greater part of these concealed subsidies undoubtedly goes to the shipbuilders, for all mail contract steamers must be built in French yards of French materials. These first costs are estimated to be from 25 to 50 per cent. greater in France than in England. Of course, it is absolutely idle to talk of the French mail subventions as being arranged on a basis of the "cost of service". Normal costs are determined by free competition and there is absolutely no competition in the letting of French mail contracts. Even if there were, the rate of subvention could have no possible relation to international freight rates, which is the only rational basis for computing the normal costs. When the French writers speak of the "costs of service" they mean generally an amount necessary to render navigation profitable to the contracting company,—an unknown quantity having a minimum but no maximum from the companies' point of view. If the government chose to give twice twenty-six million francs in mail subventions, the "costs of service" would absorb the whole amount. First costs for the necessary fleet, docks, etc., would be doubled and so on down the line in beautiful procession. The government can make the service just as costly as it pleases, so long as the tax-payers continue to foot the bills.

There is a prevalent belief that France exacts no requirements as to the manning of her subsidized vessels. This is not true, for the Navigation Act of 1793, among other provisions, required that on all vessels of French

registry, the officers and three-fourths of the crew must be French citizens. This provision holds true of all French vessels, subsidized or not, excepting those vessels for which special provision was made in the law of 1902.

CONCLUSION

Table No. XII gives the tonnage, sail and steam, of the French marine since 1870, together with the French tonnage engaged in the foreign trade of France including *cabotage international*, and the percentage of the same to the total tonnage engaged in this trade. The figures vary from some of the "official" figures, but the differences are slight.

One of the most significant facts shown by this table is the steady and rapid decline in sail tonnage until 1896. The law of 1881 apparently had no effect toward checking this decline. The law of 1893 gave such an impetus to the construction of wooden and iron sailing ships that within six years, the sail tonnage of France had increased nearly as much as it had declined during the fourteen years previous to 1896. This result appears to be due entirely to the action of the law, for no other change in economic conditions can be suggested, which would have had any marked effect in checking the steadily waning importance of sailing craft in France as in other countries. Few even of the most radical partisans of subsidies to the merchant marine are prepared to defend this bounty which so completely overturns the natural order of things, causing the more efficient carrier to be superseded by the less efficient. The last two columns show the progress, absolute and relative made by the French marine in the foreign trade of France during the period covered. It

will be noticed that, while there has been a considerable increase in the tonnage of French vessels engaged in the foreign trade, there has been a pretty constant decline in the percentage of French tonnage to the total tonnage since 1886.

Table No. XIII gives the value in millions of francs of imports and exports of France carried in French ships, and in foreign ships and the percentage of the same carried by French ships, for eleven different years, chosen with the intention to show the effect

TABLE XII
(Amounts in 1000 tons)

Years	No	Sail Tonnage	No.	Steam Tonnage
1870-----		917		154
1875-----	14,904	822	537	205
1876-----	14,861	792	546	218
1877-----	14,884	758	565	230
1878-----	14,939	730	588	245
1879-----	14,434	676	599	255
1880-----	14,406	641	652	277
1881-----	14,391	602	735	311
1882-----	14,368	566	832	416
1883-----	14,327	536	895	467
1884-----	14,414	522	938	512
1885-----	14,329	507	937	492
1886-----	14,400	492	951	500
1887-----	14,253	465	984	506
1888-----	14,263	451	1015	509
1889-----	14,128	440	1066	492
1890-----	14,001	444	1110	499
1891-----	13,890	426	1157	521
1892-----	14,117	407	1161	498
1893-----	14,190	396	1186	498
1894-----	14,332	398	1196	491
1895-----	14,386	386	1212	500
1896-----	14,301	390	1235	503
1897-----	14,352	421	1212	499
1898-----	14,406	414	1209	485
1899-----	14,262	450	1227	507
1900-----	14,313	510	1272	527
1901-----	14,393	564	1299	546

of the shipping subsidies upon the activity of French shipping. It will be noticed at first glance that the proportion of value of merchandise carried by French ships does not vary in accordance with the variations in the proportion of French tonnage engaged in the trade. From 1870 to 1880, French tonnage engaged in the foreign commerce of France declined from 32.6 per cent to 30 per cent due entirely to the rapid decrease in sail tonnage. Steam tonnage increased absolutely and relatively during this premium period,—a perfectly normal phenomenon, in-

TABLE XII (CONTINUED)

Years.	No.	Total Tonnage	French tonnage engaged in foreign commerce of France	Per cent. ¹ of French to total tonnage in French trade
1870.....		1072	5,456	32.6
1875.....	15,441	1028	4,884	36.2
1876.....	15,407	1011	5,072	35.8
1877.....	15,449	989	5,555	37.2
1878.....	15,527	975	5,571	34.5
1879.....	15,033	932	5,691	33.1
1880.....	15,058	919	7,522	30.0
1881.....	15,126	914	8,127	32.7
1882.....	15,200	983	8,527	32.6
1883.....	15,222	1003	9,469	34.1
1884.....	15,352	1033	8,919	34.3
1885.....	15,266	1000	9,216	35.4
1886.....	15,351	993	9,598	35.9
1887.....	15,237	972	10,051	36.2
1888.....	15,278	961	10,036	35.2
1889.....	15,194	932	9,886	36.1
1890.....	15,111	944	9,254	31.9
1891.....	15,047	948	9,704	30.7
1892.....	15,278	905	8,455	38.0
1893.....	15,376	895	7,844	33.9
1894.....	15,528	890	7,625	33.7
1895.....	15,598	887	8,531	30.5
1896.....	15,536	894	9,133	30.4
1897.....	15,564	920	9,551	30.3
1898.....	15,615	900	9,536	28.4
1899.....	15,489	957	10,137	28.4
1900.....	15,585	1037	9,011	28.8
1901.....	15,692	1110	9,994	31.9

¹ These figures are taken from the *Almanach de Gotha* and include only vessels entering or clearing with cargo, while the other figures are taken from U. S. consular reports, and include all entrances and clearances of French vessels.

TABLE XIII

Value of imports and exports carried in ships in millions of francs

	IMPORTS			Per cent. carried in French ships
	Carried in French ships	Carried in foreign ships	Total carried in ships	
1872----	1401	1503	2905	48.2
1880----	1368	2754	4122	32.2
1882----	1491	2366	3857	38.6
1885----	1328	1988	3317	40.1
1886----	1401	2058	3459	40.5
1890----	1575	2245	3821	41.2
1892----	1550	2147	3697	42.1
1894----	1422	2002	3414	41.5
1895----	1625	1831	3457	47.0
1897----	1614	2083	3697	43.6
1900----	1672	2405	4078	41.0
1901----	1576	2277	3844	41.0
	EXPORTS			Per cent. carried in French ships
	Carried in French ships	Carried in foreign ships	Total carried in ships	
1872----	1505	1776	3282	45.9
1880----	1359	1704	3063	44.3
1882----	1579	1665	3245	48.6
1885----	1338	1328	2667	50.2
1886----	1501	1432	2933	51.1
1890----	1793	1512	3306	54.2
1892----	1741	1360	3101	56.1
1894----	1525	1326	2851	53.4
1895----	1699	1476	3176	53.4
1897----	1641	1628	3269	50.2
1900----	1822	1809	3631	50.1
1901----	1674	1739	3413	49.0
	TOTAL			Per cent. carried in French ships
	Carried in French ships	Carried in foreign ships	Total carried in ships	
1872----	2907	3280	6187	47.0
1880----	2727	4458	7186	38.0
1882----	3071	4032	7102	43.2
1885----	2667	3317	5985	44.5
1886----	2903	3490	6393	45.4
1890----	3369	3758	7128	47.2
1892----	3291	3507	6799	48.5
1894----	2947	3328	6276	47.0
1895----	3325	3308	6633	50.1
1897----	3256	3711	6967	46.7
1900----	3505	4214	7719	45.5
1901----	3251	4016	7268	44.7

dicative of real progress. During the same period, however, the percentage of foreign commerce (value) carried by French ships declined from about 47 per cent to 38 per cent. From 1881 to 1886 the tonnage increased to 35.9 per cent, a gain of 5.9 per cent, while the value carried increased only .9 per cent. From 1886 the decline in the percentage of French tonnage to total tonnage has been pretty steady. It is a fact that in general the proportion of loaded French vessels is relatively greater than that of foreign vessels. This seems to contradict the well substantiated fact that French vessels, especially sailers, run in ballast merely for the bounty. The apparent contradiction is explained by the fact that it is very difficult for foreign ships to obtain cargo in French ports, which accounts for the very large number of foreign vessels clearing in ballast. On the other hand, the proportion of merchandise carried by French ships increased pretty constantly up to 1895 when it reached its highest point. Since that time the decline has been constant, both in imports and exports. The preference of French exporters for French ships is shown by the very considerable difference between the import and the export percentages.

In final summary of the effects of subsidy legislation in France since 1880, we may say that the laws, in so far as they increased profits, tended to increase the merchant marine; but, in so far as they deadened private enterprise, they tended to decrease it. The statistics show that before 1881 the total tonnage decreased rapidly. It does not necessarily follow from this alone that the commercial fleet declined in efficiency. The statistics of commerce, however, do show that the merchant marine was declining in activity. The law

of 1881 seems to have increased the tonnage and activity of the marine for a time. In recent years the tonnage has increased but the activity and efficiency have decreased. On the whole, the bounties appear to have operated more strongly toward increasing than toward decreasing the marine. But this does not mean that the bounties have built up the shipping interests. On the contrary, the evidence goes to show that they have sapped the vitality and soul from French maritime enterprise and left it a giant "infant industry" whose weakness increases with its growth.

GERMANY

BOUNTIES ON CONSTRUCTION AND MAIL SERVICE

Legislation in aid of national shipping is of very recent origin in Germany. The law of July 15, 1879, first granted free entry to all materials, fixtures, and even guns, used in the construction, repair and equipment of both war and merchant vessels. On April 6, 1881, Prince Bismark submitted to the German Reichstag a long memorial, reviewing in detail the French subsidy act of January 29, 1881, and mentioning the postal subventions of the different maritime countries. Bismark saw the need of wider markets for the growing industries of Germany, and he maintained that the correct policy was to follow the example of France. In the closing sentence of his memorial, he said: "Whether, under the given conditions, Germany's shipping and commerce will be able to continue their prosperous development in the face of the state-aided competition of other nations, is deserving of serious consideration."¹

¹ *Stenographische Berichte*, (1881), vol. III, p. 535.

In 1884 a bill was passed by the Bundesrath, proposing to give four million marks from the Imperial Treasury to establish a mail steamship service between Germany and Australia and East Asia. The bill could not be brought to a vote in the Reichstag before the close of the session, owing to the strong opposition. On November 20, 1884, a new bill approved by the Bundesrath was submitted to the Reichstag. This bill increased the subsidy to 5,400,000 marks (\$1,285,200) and added a line to Zanzibar, touching at Rotterdam or Antwerp, Havre or Cherbourg, and several East African ports, with a branch line connecting Venice or Trieste with the main Australian line at Alexandria. The bill was amended and finally passed in March, 1885, becoming law April 6, 1885. It provided for fifteen year contracts for a line of steamers to Eastern Asia with a subsidy of 1,700,000 marks (\$404,600) a year, a line to Australia with 2,300,000 marks (\$547,400) a year, and a branch line connecting Alexandria and Trieste with 400,000 marks (\$95,200) a year,—a total annual subsidy of 4,400,000 marks (\$1,047,200). The contracts were given to the North German Lloyd Company and went into effect in the same year (July 3, 1885).

A law of January 21, 1890 provided a subvention of 900,000 marks (\$214,200) a year for a period of ten years to the East African line from Hamburg to Rotterdam, Lisbon, Naples, Port Said, Suez and the ports of East Africa as far north as Delagoa Bay.

In 1892, the North German Lloyd Company abandoned the Mediterranean line because it was unprofitable and the subsidy of 400,000 marks was, of course, discontinued. On March 20, 1893, a supplementary law granted a sum, not to exceed 100,000 marks (\$23,800) for a line connecting some southern European

port with the lines to East Asia and Australia at Alexandria. The service was undertaken by the North German Lloyd Company for 90,000 marks (\$21,420).

In 1896, an agitation was made in favor of a further subvention to establish a fortnightly service between Germany and China. A Bill was brought before the Reichstag in November, 1897, granting a further 1,400,000 marks to the North German Lloyd for this service. The reasons given for increasing the subsidy were: (1) the importance of placing the German mail service to the East on a par with the services of England and France, (2) the benefits to commerce, and (3) the aid to the national defense. It was maintained that the law of 1885 had been a great success. The traffic of the China and Australian lines (exclusive of precious metals) amounted in 1888 to 58,477 tons valued at 74,500,000 marks, while in 1895 it had increased to 152,415 tons, valued at 139,400,000 marks. The weight of merchandise carried had increased 150 per cent. and the value had nearly doubled. On the China line, the goods carried had increased from 34,000 to 77,000 tons and on the Australian line, from 24,000 to 75,000 tons. The total export of goods of German origin (exclusive of commission trade) from Germany to China increased in ten years from a value of 16,800,000 marks to 35,400,000 marks; exports to Japan increased from 4,500,000 marks to 26,000,000 marks, and to Australia from 5,800,000 marks to 23,400,000 marks. The import trade from China was 94,000 marks in 1885 and 18,480,000 marks in 1895; Japan, 200,000 marks in 1885 and 7,780,000 marks in 1895; Australia, 9,080,000 marks in 1885 and 118,480,000 marks in 1895. Of the total exports and imports about forty per cent. was carried in the ships of the Imperial Mail Service. A large

share was therefore carried by the independent lines. The Kingsin line, with a fleet of thirteen ships carried 41,000 tons of merchandise, and the Rickmer's China line, with seven ships, carried 30,000 tons.¹

The indirect advantages claimed for the subvention were quite as great as the direct advantages. From the institution of the system dates the success of German ship-building. (?) Till that time all large ships for German companies were ordered in England. Now, all large ships for German trans-Atlantic lines are built in Germany. It was estimated that the following amounts were expended in German yards on account of the subventions from 1885 to 1897. For building, 16,600,000 marks; for repairs, 5,400,000 marks; and for extraordinary repairs, 2,880,000 marks. Besides this, the North German Lloyd spent 30,000,000 marks for coal, provisions, etc., supplied from Germany, so that, though the company had received during nine and a half years, 59,000,000 marks in subventions, it had spent nearly 60,000,000 marks for products of German industry! The appalling irrationality of these "reasons" for increasing the subventions are too apparent to merit discussion.

It was further pointed out that the German line was at a disadvantage, compared with the French and English lines, in having only a monthly service with slower vessels, instead of a fortnightly service. Commercial reasons for improving the service were strongly urged. It was asserted that, of the imports into China, amounting to 180,000,000 taels a year, 115,000,000 taels came from Great Britain and only 18,000,000 taels from Germany. Japan's yearly imports were valued at 121,-

¹ See Parliamentary papers, Commercial No. 2 (1898) under Germany.

000,000 yen, of which Great Britain's share was 42,000,000 yen and Germany's share only 8,000,000.

The North German Lloyd agreed, in event of the additional subsidy being granted, to provide a fortnightly service to China; to send ships direct to Japan; to fix the speed of their existing mail ships at 13 knots, and of the ships to be constructed in future at $13\frac{1}{2}$ knots; and to meet all requirements of the Admiralty as to ships and crews. The *Entwurf* provided for the building of four new vessels at a cost of 13,000,000 marks. The measure was approved by the Bundesrath, but was dropped in June, 1897, because of the opposition in the Reichstag. It was brought up at the next session and finally became law, April 13, 1898. The subsidy was increased 1,500,000 marks (\$357,000) a year for extending the East Asiatic service to China direct and for making the whole service fortnightly. The contract was extended for another fifteen years. The average speed on the China-Japan line was fixed as follows: between mail ports in Europe and the terminal port in Eastern Asia, 13 knots for old and 14 knots for new steamers; on branch lines, 12.6 knots; on the Australian line the speed between the ports of call in Europe and the terminal port in Australia must average 12.2 knots for old steamers and 13.5 knots for new. If foreign competing lines increase the speed of their vessels, the company is bound to do likewise, and without additional subsidy, unless the foreign companies shall receive extra payment.

The total subvention now paid by the German government for the Asiatic and Australian services is 5,590,000 marks (\$1,330,420). By a contract between the North German Lloyd and the Hamburg-America Line, made January 10, 1899, the latter line receives a

part of this subvention. In 1901, the subvention to the German East-Africa Line was increased to 1,350,000 marks (\$321,300), so that Germany now pays altogether 6,940,000 marks (\$1,651,720) per annum in post subventions.

The mail routes and the annual subventions from 1893 to 1897 inclusive are given in Table XIV.

The German officials and writers on this subject now affirm that the postal subventions are merely payments for services performed for the government on the "cost basis." This opinion is contradicted by the memorials submitted to the Reichstag by Bismark, and by the debates on the different measures. The memorandum submitted in 1890 expressly states that "the annual sums to be granted as postal subventions can not be regarded merely as payment for services rendered"; but that they are "value also paid for important interests of the German *export industry*, the requirements of the navy, and of a colonial policy." It is evident from this, that the subventions were not originally granted as mere payments of a business nature for carrying mails. The smallness of the amounts granted, relatively, is partly due to the efficiency of German shipping and partly due to the fact that the government grants other favors to German shipping which do not appear in the contracts, but which nevertheless increase the profits of the steamship companies.

In addition to the free importation of the materials of construction, and the preferential railway rates on the like materials, the state grants special assistance to the German Levant Line and to the German East-Africa Line, both of Hamburg, in the shape of special through freight rates on merchandise exported from inland Germany to East Africa and the Levant. These

TABLE XIV

Contracting company	Routes	Trips per annum	Miles run per annum (in 1000 miles)	No. of steamers required	Minimum net ton of each steamer (in 1000 tons)	Speed in knots	Subsidy per annum	Rate of subsidy per mile
North German Lloyd.	(1) Bremerhaven-Shanghai---	13	300	5	4.5	12		
	(2) Hongkong-Yokohama---	13	44	1	1.5	11.5	1,790,000 m. (\$426,020) ¹	4.56m. (\$1.083)
	(3) Singapore-New Guinea---	6	48	1	1.5	9		
	(4) Bremerhaven-Sydney ---	13	340	5	3.0	11.5	2,300,000 m. (\$547,400)	6.75m. (\$1.61)
German East Africa Hamburg Line.	(5) Hamburg-Natal -----	13	230	4	2.2	10.5		
	(6) Dar-es-Salaam-German East African ports----	13	15	1	.5		900,000 m. (\$214,200)	3.38m. (\$0.804)
	(7) Mozambique-Portuguese coast ports-----	13	19	1	.5			
Totals -----		84	999	19	51.8		4,990,000 m. (\$1,187,620)	

¹ Including 90,000 marks for a connecting line in the Mediterranean.

combined land and sea through rates which were introduced for the Levant line on June 15, 1890, and for the East-Africa line April 1, 1895, are lower than those in force on goods sent to German ports for direct exportation by sea. Mr. Albert Aftalion says of them;¹ "The reduction upon the railways and the boats of the German Levant Line is so great that a quintal (220.46 lbs.) of such merchandise pays only 4 or 5 marks from central Germany to the ports of the Orient, while the transport by Marseilles from the interior of France would cost 15 or 20 marks." These low rates stimulate the export of German merchandise, and thus help the lines to make profits. The goods sent by the Levant line are transported on the Turkish and Bulgarian railways at reduced rates. Besides this the line is subventioned by the Bulgarian government to the amount of 120,000 fr. yearly.

The German customs-tariff law of May 24, 1885, exempted from duties all materials of construction and equipment for sea going vessels, and the laws of 1889, 1892, and 1893 made additions to the list of free materials.

PREFERENTIAL RAILWAY RATES

Perhaps a discussion of the preferential rates given by the state railways of Germany does not legitimately belong in a study of government shipping subsidies, but the importance of the German merchant marine, and the assertions so often made that it owes its rapid growth to the various aids granted by the government, makes it necessary to consider this special form of indirect bounty. The state railway rates in force, October, 1895, gave a preferential rate on ship-building

¹ *Revue d'Economie Politique*, vol. 15, p. 184.

materials of 1.7 pfennigs per ton-kilometer plus 12 pfennigs booking fee instead of the ordinary rate of 4.5 to 3.5 pfennigs plus 12 pfennigs booking fee. The same rates were applied to rivets, screws, nails, plates, nuts, wire, files, ships' chains, frames, anchors, and all other materials used in shipping. Recent agitation has caused still further reductions to be made for certain materials, as rough iron plates, etc., in view of the lower prices of these materials in the United Kingdom.

The English consul general at Berlin in 1898 wrote: ¹ "In no case is the state railway administration prepared to sacrifice income, not even for the purpose of aiding German coal-owners or merchants in exporting coal to London." Just why it should occur to the state railway administration that the export of German coal to London is in itself a highly desirable transaction, is puzzling. It is certain that these preferential rates do reduce expenses, increase business, and add to the margin of net profit between the freight charge and the cost of transport for the steamship companies. At the same time they are not large and depend so greatly upon the activity and enterprise of the companies themselves that, as yet, no demoralizing effect is discernible.

CONCLUSION

The development in trade over the North German Lloyd lines is shown in Table No. XV. Though the trade is not great, it is prosperous and increasing.

From 1890 to 1898, the East Africa Line increased the tonnage of its fleet from 4394 tons to 27,125 tons, while its outward bound traffic increased from 388 tons to 1877 tons and the homeward bound traffic increased from 1302 tons to 2862 tons yearly. Such a microscopic

¹ See Commercial No. 2 (1898).

TABLE XV
(Amounts in 1000)

Year	German East Asiatic Line (North German Lloyd)				German Australian Line (North German Lloyd)			
	Outwards.		Homewards.		Outwards.		Homewards.	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value
1888----	18	£951	15	£1410	8	£676	15	£614
1889----	21	985	17	1768	10	633	13	609
1890----	19	1050	15	1455	14	677	20	885
1891----	17	861	20	1476	12	697	20	877
1892----	16	916	21	1593	12	597	18	785
1893----	23	1289	24	1772	17	607	23	1031
1894----	37	1372	34	2771	24	798	25	999
1895----	41	1464	35	2785	36	1130	38	1457
1896----	45	2233	33	2712	43	1415	43	1503
1897----	43	2658	30	3292	51	1615	52	1896

Compiled from reports in Commercial No. 2 (1898).

volume of trade between Germany and East Africa does not indicate any very powerful influence from the preferential railway tariffs. The increase in the company's fleet is not, however, due to inordinate postal subventions, for during these years it received only 900,000 marks per annum, a rate of \$0.804 per mile steamed. The increase in tonnage is in fact due to the profitableness of trade along the coast, and has no vital relation to the mail or other subsidies. The German Levant line refuses to make public any statement of its business. Its fleet has increased from a tonnage of 7014 in 1890, when the line was started, to 26,405 tons in 1898, showing that its trade must have increased rapidly. What portion of this increase belongs to Germany, can only be surmised.

In Table No. XVI is given the official statistics of the German merchant marine since 1871. Endless statistical material exists in the *Handels Archiv* and the various official publications, going to show that German shipping is prospering, but it is a waste of time and space to give these statistics in a discussion of the effects of shipping subsidies. In 1894, less than four per cent

TABLE XVI

(In 1000 tons)

	Total shipping		Steam shipping		Sailing shipping	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
1871-----	4579	982	147	81	4372	900
1874-----	4495	1033	253	167	4242	866
1877-----	4809	1103	318	180	4491	922
1880-----	4777	1171	374	196	4403	974
1881-----	4660	1181	414	215	4246	965
1882-----	4509	1194	458	251	4051	942
1883-----	4370	1226	515	311	3855	915
1884-----	4315	1269	603	374	3712	894
1885-----	4257	1294	650	413	3607	880
1886-----	4135	1282	664	420	3471	861
1887-----	4021	1284	694	453	3327	830
1888-----	3811	1240	717	470	3094	769
1889-----	3635	1233	750	502	2885	731
1890-----	3653	1433	896	723	2757	709
1891-----	3639	1468	941	764	2698	704
1892-----	3728	1511	986	786	2742	725
1893-----	3729	1522	1016	823	2713	698
1894-----	3665	1553	1043	893	2622	660
1895-----	3592	1502	1068	879	2524	622
1896-----	3678	1487	1126	889	2552	597
1897-----	3693	1555	1171	969	2522	585
1898-----	3713	1639	1223	1038	2490	601
1899-----	3759	1737	1293	1150	2466	587
1900-----	3883	1941	1390	1347	2493	593
1901-----	3959	2093	1463	1506	2496	586

of the net tonnage of Germany's merchant fleet received direct subventions. It can not be actually much greater now, although it is difficult to estimate, because the mail steamships are not exclusively employed in carrying the mails. As a matter of information it is interesting to learn that in 1880 German shipping made up but 39.1 per cent of the total tonnage entered and cleared at German ports, while in 1900 the proportion was 59.2 per cent. Of vessels carrying cargo, 49 per cent were German in 1880 and 61.7 per cent in 1900. In 1875 only 17.8 per cent of the net tonnage of the German merchant fleet consisted of steam tonnage; in 1880 it

had sunk to 16.7 per cent; 1890 it was 46.7 per cent; in 1895, 57.6 per cent; and in 1900, 66.5 per cent. It is true that steam tonnage increased more rapidly after 1881 than before, but to ascribe this acceleration to the mail subventions is too ridiculous to be amusing. [A certain class of people in England and especially in the United States read the evidences of Germany's progress in shipping, and, by means of a process which it would be flattery to call reasoning, they conclude that this progress is due to enormous subsidies paid by Germany. There is only one sufficient answer to this assertion. It is absolutely false. First, as we have seen, Germany does not pay large subsidies. Though the contracts are not let at public auction, the government takes good care of its end of the bargain, and requires good service for moderate pay. In relation to miles traveled the German service is cheaper than the English, though in relation to the quantity of mails it is considerably dearer. Secondly, no possible connection between the postal subventions and the growth of the marine can be established. The North German Lloyd and the Hamburg-Amerika Line owe their great success to the emigrant movement to the United States. It is scarcely necessary to mention the great industrial revolution in Germany since 1880 to prove that the growth of German shipping is entirely independent of official tinkering. As to the indirect bounties, their influence can hardly account for any considerable part of the rapid development of German shipping and commerce. As was shown above, the *intent* of the government was undoubtedly to aid shipping and encourage trade. If this motherly hovering has produced good results, it has been because of its inadequacy.]

ITALY

BOUNTIES ON CONSTRUCTION AND NAVIGATION

Early Bounty Legislation.—"Italian shipping has received the fostering care of government in times past. Especially was this the case in the Neapolitan kingdom, where in 1816, King Ferdinand issued his famous 'tratte' granting a premium of ten dollars the ton for all ships built within the kingdom, and a diminution of ten per cent. of the taxes of entry and exit on all merchandise under the Neapolitan flag. With this encouragement, trade increased, ships multiplied, the construction was improved and the Neapolitan merchant service extended itself to the Black Sea and the Sea of Azof to load grain for all ports of Europe and carry on a general exchange of merchandise. In 1824, the bounty was lowered to five dollars the ton, but the impetus already given to ship-building and the shipping trade had imparted to these industries a self-sustaining power. In 1860, the protection was further restricted, but still the number of Neapolitan ships was augmented."¹

The above quotation is given as an example of the better class of literature produced on this subject. No evidence is submitted in support of the assertion that Neapolitan shipping prospered because of the bounty and the ten per cent. discount. At that time (1816) all maritime countries had similar discriminating duties, so the reduction may be regarded as merely an equalization of the higher duties which Neapolitan goods had to pay in other countries when exported in Neapolitan ships. The neighboring kingdom of Sardinia enjoyed

¹ U. S. consular reports, 1882, No. 24, pp. 491, 492.

an equal prosperity in commerce and shipping without bounties. We are thus compelled to seek for more general causes than bounty laws, to account for this expansion in Italian trade. We do not need to seek far. Italy had then, as now, a redundant population supplying plenty of cheap labor for building and running the wooden sailing ships of that date. At the same time wood was plentiful and tolerably cheap. Even the most superficial investigation must convince an impartial observer that the bounties did *not* create the Neapolitan merchant fleet, and that the merchant fleet did not make the people prosperous. The mass of the population was then, as now, poor, ignorant, and degraded. The Italian kingdoms competed successfully with England and America as sea carriers by reason of cheap materials and cheap labor.

When the United Kingdom of Italy was formed, the protective policy was continued though less liberally. In 1866 a law was passed granting a premium on construction of wooden ships. Subsequent laws exempted ship-building materials from duties. But the sum paid in bounties was comparatively small. The merchant marine continued to prosper for a time because shipping was an industry well suited to Italy at that time, before iron steamships were much used.

The Italian fleet reached its greatest extent and activity in 1870, when the international movement of merchandise under the Italian flag amounted to 8,875,769 tons. In 1879 the amount had shrunk to 6,692,081 tons,—a diminution of nearly twenty-five per cent. in nine years. During the same period ship-building in Italy also declined greatly. "It was conclusively shown before the commission [of 1881] that the several laws,

beginning with that of July, 1866, granting exemptions from import duties of materials used in the construction, repair, or enlargement of ships were wholly inadequate to stimulate ship-building or arrest the diminution of ships."¹ The steam tonnage increased from 1865 to 1881 by 56,395 tons, but the sail tonnage decreased by nearly 100,000 tons from 1870 to 1881. The decline in wooden construction is shown by the annual premiums awarded to builders of wooden ships, by the law of July 14, 1866 and the royal decree of May 27, 1878. The amounts were as follows: 1870, \$35,075; 1871, \$28,898; 1872, \$24,958; 1873, \$20,121; 1874, \$22,888; 1875, \$36,452; 1876, \$28,488; 1877, \$17,650; 1878, \$13,638; 1879, \$6806; 1880, \$6832.

Law of 1886.—On the recommendation of the parliamentary commission of 1881, a bill was framed and finally enacted December 6, 1886, giving bounties on construction as follows: (1) On steam or sail ships, built of iron or steel, 60 lire (\$11.58) per gross ton; (2) On sailing ships of wood, 15 lire (\$2.895) per gross ton; (3) On floating material² of iron or steel, 30 lire (\$5.79) per gross ton; (4) On construction and repair of engines, 10 lire (\$1.93) per horse power; and (5) Of boilers, 6 lire (\$1.158) per quintal (220.46 lbs.). The bounties on ships, engines, and boilers were to be increased ten to twenty per cent for vessels convertible into war cruisers, having a speed of 14 knots and sufficient coal-carrying capacity to steam 4000 miles at 10 knots per hour. The bounties were made to apply to vessels purchased abroad as well as to those constructed in Italy. Article 5, sus-

¹ U. S. consular reports, 1882, No. 24, p. 492.

² Floating material (*galaggiamento*) includes all those vessels and structures, such as docks, etc., not provided with a certificate of nationality. Vessels on rivers and lakes and some navigating on the sea-board come under this head.

pended during the term of the act (ten years) the former laws granting free entry to ship-building materials, as well as the premiums on naval construction established in 1866. The amounts paid out under this law were as follows: In 1886 for construction 110,846.12 lire (\$21,393.30), for repairs 150,876.15 lire (\$29,119.10). In 1887 for construction, 114,692.48 lire (\$22,135.65); for repairs, 180,266.62 lire (\$34,791.46).

The tariff law of July 14, 1887, increased the customs duties on materials for ship-building, in consequence of which a royal decree was issued March 22, 1888, granting additional bounties on construction and repair, making the total bounties as follows: per gross ton of iron or steel hulls, 77 lire (\$14.861); of wooden hulls, 17.50 lire (\$3.378); of floating material, 37.50 lire (\$7.238); per horse power of engines, 12.50 lire (\$2.412); per quintal of boilers, 9.50 lire (\$1.834). Besides provision was made to pay 50 lire (\$9.65) per gross ton for the construction of war vessels, 8.50 lire (\$1.641) per horse power for engines, and 9.50 lire (\$1.834) per quintal for boilers to be used on war ships. Other apparatus to be used on board war ships was granted 11 lire (\$2.123) per quintal. Article 8 continued the bounty of one lira per ton on coal imported in Italian vessels from beyond the straits of Gibraltar, provided that such cargoes of coal amount to at least three-fifths of the vessel's carrying capacity.

A navigation bounty to Italian vessels was given at the rate of 0.65 lire (12½ cents) per gross ton for every 1000 sea miles run beyond the Suez canal or the Straits of Gibraltar to or from ports outside of Europe. The same bounty was given to Italian vessels sailing between one continent (with its adjacent islands) and another continent (with its adjacent islands) outside

the Mediterranean Sea. Sailing vessels must not be more than fifteen years old and steamers not more than ten. Pleasure craft and mail-route steamers were made ineligible to receive the navigation bounties. Distance sailed was to be reckoned by the shortest sea route from the last port where commercial transactions were made, to the first port of entry. Steamers receiving bounty could not be sold or chartered to foreign governments or companies without the consent of the Italian government.

TABLE NO. XVII

	No. of ship- yards	All Vessels		Value in 1,000,- 000 lire	Sail No.	Iron or steel vessels ¹	
		No. of vessels	Gross tons		Gross tons	No.	Gross tons
1879----	50	269	21,213	5			
1880----	48	263	14,526	4			
1881----	41	228	11,356	3			
1882----	45	233	17,809	4	-	6	2,597
1883----	41	154	15,080	3	2	387	122
1884----	38	154	15,781	5	6	955	2,571
1885----	39	197	9,945	2	1	160	719
1886----	43	193	11,421	3	2	252	114
1887----	38	167	5,191	1	-	7	278
1888----	37	277	5,960	2	3	458	1,723
1889----	39	354	11,615	4	4	3,739	981
1890----	51	357	26,774	8	16	12,368	514
1891----	47	353	29,784	10	15	10,584	7,113
1892----	42	258	17,599	5	5	3,801	3,428
Totals ----		3,477	214,054	66	54	32,452	20,157
1879-85-		1,498	105,710	29	9	1,502	6,006
1886-92-		1,979	108,344	36	45	30,950	14,151
Increase--		481	2,634	6	36	29,448	8,145

¹ No returns before 1882.

Table No. XVII gives the construction in Italian yards for the seven years preceding and the seven years following the subsidy act of 1886, with a comparison of results in the two seven year periods. Details of iron and steel construction are given in the last four columns.

It will be noticed that the increase in the number of vessels built since 1886 was considerable, but the increase in tonnage was slight. This was due to the construction of so many small iron and steel craft for the coasting trade. Very few large ships were built. In return for an expenditure of 6,396,419 lire (\$1,234,508.87) in construction bounties, the value of Italian construction increased only 6,472,954 lire (\$1,249,280.12) in the period 1886-92 compared with the period 1879-85. In fairness to the system, however, it must be said that the bounties were no more than equivalent to the customs rebates given before 1886, so that ship-building enjoyed no greater degree of protection under the direct bounty system than under the indirect bounties existing since 1878. Table No. XVIII gives a summary of the bounties paid under this law from 1886 to 1892 inclusive. Of the 19,111,546 lire (\$3,689,493.38) paid in navigation bounties, 6,177,690 lire (\$1,192,294.17) went to steam vessels and 12,938,856 lire (\$2,497,199.21) to sail vessels. The import bounty on coal failed to bring any considerable quantities of that indispensable commodity, and the quantity imported dwindled from year to year. In 1886 were imported 138,177.31 tons, while in 1892 only 92,781.22 tons were imported. The total construction and navigation bounties paid in 1891 amounted to 5,416,042 lire (\$1,045,296.11); in 1892 they were only 3,655,956 lire (\$705,599.51); and in 1893 only 2,362,140 lire (\$455,993.02),—which shows a joyful dwindling away of the burden on the treasury, but does not speak well for the effectiveness of the bounty to increase shipping. Table No. XIX gives statistics of the navigation bounties. Comment is superfluous.

TABLE XVIII

Construction	Rates of construction bounties	Total sums paid	(In 1000 lire) Sums paid as rebates of customs	Net bounties
<i>Merchant Construction</i>				
Wooden hulls,	15 per gross ton	189	94	94
	17.5 " "	870	497	373
Iron and steel hulls	60 " "	86	46	40
	77 " "	3,223	2051	1,172
Floating material	30 " "	23	23	----
	37.5 " "	88	88	----
Engines	10 per horse power	27	8	18
	12.5 " "	385	176	209
Boilers	6 per quintal	46	14	31
	9.5 " "	289	165	123
Repairs, domestic boilers	6 " "	49	15	33
	9.5 " "	157	90	67
Repairs, domestic engines	11 " "	184	----	184
<i>Naval Construction.</i>				
Iron and steel vessels	50 per gross ton	256	----	256
Small craft	37.5 " "	109	----	109
Engines	8.5 per horse power	175	----	175
Boilers	9.5 per quintal	152	----	152
Auxillaries	11 " "	80	----	80
Totals		6,396	3272	3,123
Navigation bounties		19,111	----	19,111
Coal import bounties		925	----	925
Grand total all "		26,433	3272	23,160

Compiled from information given in U. S. consular reports, Vol. 44. See Italy.

Law of 1896.—On July 23, 1896, the Italian Parliament enacted for a further period of ten years, a new subsidy law which was closely modeled after the law of 1886. The construction bounties were left as before, except that ships of war built for foreign countries were barred from receiving subsidy. An important change was the re-enactment of the customs rebates on materials. The navigation bounties were raised from 0.65 lira (12½ cents) to 0.80 lira (15.44 cents) per gross ton for every 1000 sea miles sailed by Italian built vessels beyond the Suez Canal or the Straits of Gibraltar. The rate was

to be diminished by 10 centimes (1.93 cents) for steamers and 15 centimes (2.895 cents) for sailers every three years.

TABLE XIX

Years.	Kind of vessels	No. of ships	Tons of merchandise carried (in thousands)	Passengers carried	Miles traversed (in thousands)	Bounties (in 1000 lire)	Bounties (in 1000 dollars)
1886	{ Steam--	24	180	54,382	691	883	170
	{ Sail----	493	803	40	5706	2495	481
1887	{ Steam--	32	242	67,341	901	1123	216
	{ Sail----	442	730	23	5466	2407	464
1888	{ Steam--	25	202	83,480	940	1066	205
	{ Sail----	361	617	-----	4962	2263	436
1891	{ Steam--	---	---	-----	---	735	141
	{ Sail----	---	---	-----	---	1319	254
1892	{ Steam--	---	---	-----	---	692	133
	{ Sail----	---	---h	-----	---	1215	234
1893	{ Steam--	20	94	39,807	480	556	107
	{ Sail----	137	283	-----	1942	1121	216

During the year 1897, the Italian government distributed 2,044,339 lire (\$394,557) in navigation bounties, 124,973.97 lire (\$20,260) in construction bounties, and refunded in drawbacks for duties on imported materials of construction 448,729.76 lire (\$86,605). On the other hand, the government received from the commercial marine in harbor dues and taxes 6,915,301.80 lire (\$1,334,653),—an excess of taxes on shipping over bounties to shipping of 4,297,259.07 lire (\$833,231). These taxes do not include taxes on ship-building plants. The palm must undoubtedly be awarded to the Italian bounty system for all round imbecility and utter senselessness. The whole theory of bounties, as of all forms of protection, rests upon the possibility of increasing the national income by building up one class of industries at the expense of another class. Italy will build up her merchant marine at its own expense by taxing it heavily, afterwards returning somewhat less than a quarter of the amount collected. The system then in

its entirety is not really a bounty system at all, but a tax system. It seems incredible that a country should seriously attempt to tax itself rich in this absurd manner, but the disappointment expressed by the Italian law-givers at the failure of their scheme compels us to believe that the measure was not intended as a joke. It does not require great financial acumen to discern that the same benefit would have been conferred upon shipping at much less cost to the nation had the taxes been reduced one-fourth. Under present natural economic conditions, Italy should be one of the leading ship-owning nations, because she has a large surplus population, accustomed to the sea and expert as mariners. Because of a lack of capital and the heavy taxation on shipping, the merchant marine does not prosper as it should. On the other hand, Italy can never become important as a ship-building country, because she has neither coal nor iron in any considerable quantities. But the government will build up this industry in spite of Nature's interdict, and since the law of 1896, according to the *Annuario Statistico Italiano*, there has been a very considerable increase in construction. If the whole object of the construction bounties is to stimulate the building of ships, especially steel ships, in Italian yards, then it must be granted that they have been in a measure successful since 1896. But it must not be supposed that this activity indicates a permanent and self-perpetuating prosperity in the industry. The statistics given below include naval construction, which accounts in large part for the increase in steam tonnage constructed.

The American consul-general at Rome in his report to the Department of State in 1900 says:¹ "In view of

¹ Special consular reports, vol. 18 (1900), p. 72.

the efforts of the government to encourage Italian shipping, the long sea-board, and the necessity of shipping to the economic life of the country, the results are certainly far from satisfactory; and it is particularly remarkable that the tonnage of Italian steamers remains generally so low, while in other countries the tendency has been toward the employment of large ships, as more economical in working. It is sometimes asserted that taxation on the shipping industry is so heavy as to kill small enterprise, which, if unfettered, might grow and flourish; but, on the other hand, the government can point to the large navigation subsidies, which for the past year are estimated to exceed 3,000,000 lire (\$579,000). A further, and perhaps more correct explanation of the unsatisfactory situation is, that the bulk of the subsidies are paid to two or three companies, which by constant favor have established a sort of shipping monopoly and successfully use their influence to crush all possible rivals". Between the government, on the one hand, and the shipping monopoly on the other, it is not a subject for surprise that the Italian marine does not flourish. Construction in Italian yards in recent years is as follows:

TABLE XX

(In 1000 tons)

	1896	1897	1898	1899	1900
Steam tonnage.....	2	8	14	29	47
Total tonnage	6	11	19	33	54

Decree of 1900.—On November 16, 1900, a royal decree was issued modifying the law of 1896 in some particulars. A bounty of 45 lire (\$8.685) per gross ton was given for iron or steel sailing ships and for steamers with a speed below 12 knots; 50 lire (\$9.65) per gross ton for steamers with a speed of 12 to 15 knots; 55 lire

(\$10.615) per gross ton for steamers above 15 knots; and 13 lire (\$2.509) per ton net for wooden hulls. No bounty is allowed on vessels built for foreigners in Italian yards. (!) The customs drawbacks were abrogated and in place of them a bounty of 5 lire (\$0.965) per quintal (220.46 lbs.) of metal used in repairs was granted.

The navigation bounties per gross ton per 1000 miles were made as follows: steamers, 40 centimes (7.72 cents) up to the 15th year after construction; sailing vessels, 20 centimes (3.86 cents) up to the 21st year after construction. The yearly distances run for which bounties are to be paid may not exceed 32,000 miles for a steamer below 12 knots, 40,000 miles for a steamer of 12 to 15 knots; 50,000 miles for a steamer above 15 knots, and 10,000 for a sailing vessel. All Italian ships are eligible to these bounties. Foreign built vessels are excluded.

The building and navigation bounties for steam vessels shall not be granted for more than 20,000 tons gross before June 30, 1902, a second 20,000 tons for 1902-3, and 40,000 tons for each successive year until the law of July 23, 1896 shall expire, thus making a maximum total of 200,000 gross tons of new tonnage on which it is possible to collect the bounties to steamers. The maximum of expenditure for all construction and navigation allowances is limited to 10,000,000 lire (\$1,930,000) a year. So far as could be learned, the new provisions have been no more successful in reviving ship-building and navigation than the earlier attempts.

MAIL SUBVENTIONS

The Italian steamship companies, *Florio* and *Rubattino*, were consolidated by a convention with the

Italian government, June 15, 1877, and have received an annual mail subvention since that date. Since 1889 the subvention has been 9,582,344 lire (\$1,849,392.39). The convention with the government fixes the tariff per league for passengers at 93 to 66 centimes for first class, 62 to 44 centimes for second class, and 31 to 22 centimes for third class, exclusive of food. For merchandise the freights fixed vary from 1.50 to 10 lire per quintal, according to class, distance carried, and the amount of shipment. The speed required of the vessels varies from eight knots up to ten knots and the capacity from 200 tons to 1300 tons. Fines of 50 to 100 lire for unjustifiable delays are established. In addition to carrying the mails the company is obliged to carry at half price, civil and military employees and prisoners.

The specific lines, services, and subventions are as follows: (1) Sardinian and Tuscan Archipelago lines, for navigating 114,732 leagues, 1,978,616 lire (\$381,872.89); (2) Sicilian lines, 138,880 leagues, 2,496,880 lire (\$481,897.84); (3) Egyptian, East Indian, Chinese, Japanese, Batavian and Red Sea lines, 238,818 leagues, 3,063,488 lire (\$591,253.18); (4) Levant lines, 95,160 leagues, 1,998,360 lire (\$385,683.48); (5) Lines of Naples and Gaeta bays, 8,552 leagues, 45,000 lire (\$8,685); total for 596,142 leagues, 9,582,344 lire (\$1,849,392.39). The rate of subsidy for the first system is 18 lire (\$3.474) per league except for one short line of 162 leagues; for the second system 19 lire (\$3.667) per league; for the third, Genoa to Singapore, 32 lire (\$6.176), and Tunis, Tripoli, Malta, etc., 14 lire (\$2.702) per league; for the fourth (Levant) system, 21 lire (\$4.053) per league. The lines of the third system between Genoa, Naples and Alexandria, Suez and Aden, Genoa and Batavia, Genoa and Bombay are paid a lump

sum without reference to mileage, as are also the lines of the fifth system. All these lines are owned by the Italian General Navigation Company (*Società Florio e Rubattino*). Previous to 1896 this powerful company has owned more than one-half of the steam tonnage of Italy, and practically all of the larger steamers. In 1889 its fleet numbered 109 steamers of 103,061 tons; in 1899, the number was 99 with 109,929 tons, and in 1900 it had 100 steamers of 119,224 tons, showing that the postal subventions do not accelerate growth any better than do the bounties. The tendency of the mail payments to strengthen this already too influential company, has led many to advocate doing away with the contract mail service altogether and substitute therefor a government packet-boat service. The experience of England with state owned and operated packet-boats demonstrated the inefficiency and extravagance of this system. The mail steamers must be merchant steamers as well, if the costs of service are not to be enormously increased, and it is not yet time for any state to take over its transport lines of the sea, and enter into competition with the private enterprises of other nations. The contract system is by far the best system yet devised, but it must be carefully administered, if the government is to escape exploitation.

Many Italians condemn the mail subventions in the most unmeasured terms. Mr. E. Girretti¹ calls them "scandalous spoliation of the balance of Italians in favor of the navigation company." This is putting it pretty strong, for the rates per mile are not so high as those paid by several other countries. On the other hand, however, the requirements are by no means so ex-

¹ Cf. Girretti, Edoardo, J premii alla marina mercantile, *Giornale degli Economisti*, Marzo 1900.

acting, either as to size and speed of vessels, or the amount and importance of the services rendered. In view of these facts, it seems probable that these subventions are partly in the nature of concealed bounties. It is also possible that Italian citizens own more steamers because of the mail subsidies, but it is not at all evident that Italy is benefited in the least either financially or commercially by this fact,—if it be a fact.

Table No. XXI gives the statistics, taken from Lloyds, of the Italian merchant marine since 1870. Steam tonnage has increased steadily, while the sail tonnage has increased since 1896. The increased tonnage consists for the most part of small craft so that the carrying capacity of the fleet is not so great as would appear.

TABLE XXI
(Amounts in 1000 tons)

Years	Sail vessels		Steam vessels		Total vessels	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
1870----		980		32		1012
1875----	10,828	987	141	57	10,969	1044
1880----	7,822	922	158	77	7,980	999
1882----	7,528	885	192	104	7,720	990
1884----	7,072	848	215	122	7,287	971
1885----	7,111	828	225	124	7,336	953
1886----	6,992	801	237	144	7,229	945
1888----	6,544	677	266	175	6,810	853
1889----	6,442	642	279	182	6,721	824
1890----	6,442	634	290	186	6,732	820
1891----	6,308	609	316	201	6,624	811
1893----	6,341	588	327	208	6,668	796
1894----	6,231	571	328	207	6,559	779
1895----	6,166	555	345	220	6,511	776
1896----	----	527	----	237	----	765
1897----	5,872	526	366	259	6,238	786
1899----	5,665	559	409	314	6,074	873
1900----	5,511	568	446	376	5,957	945

CONCLUSION

As indicated above, the healthy growth of the Italian merchant marine is hindered by the natural disadvan-

tages, as well as the burdensome taxes in support of naval and military establishments out of all proportion to the resources and importance of the country. The Act of July 14, 1864, imposed a tax of 13.2 per cent. upon three-fourths of every income derived from industries and commerce. The ship-owners of Naples, Genoa and elsewhere refused to pay the tax on the plea that merchant ships were not a part of the territory of the state, and that the law in question made no allusion to vessels, which by other statutes were subject to consular, anchorage, and sanitary taxes, and that the application of the income tax on *ricchezza mobile* to them would be double taxation. The resulting litigation was settled by the court of Cassation at Rome in a decision adverse to the claims of the ship-owners. The methods of enforcing the law are very unequal, so that complaints of its injustice are frequent and bitter. Some writers favor exempting shipping from all taxation, and this would certainly be a cheaper and better way of giving that industry an advantage in comparison with other industries in Italy. For reasons already indicated, it is likely that if the heavy burdens were taken from Italian shipping, it would grow by its own strength, without bounties. Whether it be desirable to favor shipping at the expense of other industries, however, is very doubtful. It seems most probable that an all round diminution of taxes on all industries would be the greatest benefit the parliament could bestow.

It was shown before the commission of 1881 that the consular fees paid on behalf of Italian ships are much higher than those of other European countries. A steamer of 1800 tons, sailing between Genoa and South America and stopping at Malaga, Pernambuco, Montevideo, Bahia, Lisbon, and Marseilles, paid a consular

fee of \$72 at each clearance, a total for the voyage of \$504. At this rate this vessel would pay \$3024 within the year. It was repeatedly asserted before this commission that the obstinacy of the Italian ship-owners in clinging to wooden sailing ships, instead of adopting the more efficient steamship, was responsible for the decline in the Italian marine. The scarcity of coal and iron explains this "obstinacy." Statistics show, moreover, that Italian owners before 1896 were discarding sailing vessels for steamships as rapidly as was profitable. All the coal used in Italy must be imported. Elba has tolerably rich veins of iron ore, but it is cheaper to import pig-iron than to import coal and coke for smelting the native ores. Most of the angle-iron and ship plates used in steel construction in Italy are manufactured at home it is true, but out of imported pig-iron. The cost of these materials is much greater than in England or Germany. In conclusion it must be said that there is not the slightest possibility of ever establishing steel ship-building on an independent basis in Italy. The overworked "infant industry" argument for protection fails utterly of application in this case. Those who wish to defend the protection of Italian ship-building must do so on nationalistic grounds. And in this latter respect regard must be taken for the resources of the nation. In navigation the Italian marine needs freedom, not protection. The Italians possess considerable maritime enterprise. The United States consuls and other authorities generally affirm that the Italian ships are manned at less expense than those of any other European country. Reasonable taxation would probably do what the present bounties have failed to do,—rehabilitate the Italian merchant marine.

AUSTRO-HUNGARY

AUSTRIA

Introductory.—The first legal enactment by the Austro-Hungarian monarchy to encourage shipping was the law of June 19, 1890, exempting all iron and steel steamers and sailing ships from trading and income taxes while engaged in ocean voyages. As the Austrian merchant marine continued to decline, it was thought advisable to try stronger measures of encouragement, so the postal subventions were established in 1891, and the general subsidy law passed two years later. As these are the only subsidy acts passed, they will be considered chronologically.

Postal Subventions.—By the Law of July 25, 1891, the Austro-Hungarian government fixed the rate of subsidy for mail-contract steamships according to distance traversed, speed, and the importance of the line to the postal service. For express lines (speed above 10 knots), the maximum is 70 kreutzers (28 cents) per nautical mile; for slower lines the maximum is 50 kreutzers (20 cents) per mile. The usual services are required as to the mails. In addition it is provided that the postal authorities may fix or change the itinerary of the mail steamship as the postal service may require, but the steamship company can not make such changes without the consent of the postal authorities. The company undertaking a postal contract must deposit caution money equal to the amount of one year's subvention. The above are some of the general provisions of the law, which apply to all vessels under mail contract. The peculiar features of the law are contained in articles 2 and following, which lay down the provisions of contract between the government and the

Austro-Hungarian Lloyd Company. The bounties are fixed as follows :

I. For the Adriatic and Mediterranean service; (1) for a speed of at least $11\frac{1}{2}$ knots, 3 florins 55 kreutzer (\$1.438) per mile; (2) for a speed of at least 10 knots, 2 fl. 40 kr. (\$0.972) per mile; (3) for a speed of at least 9 knots, 1 fl. 80 kr. (\$0.726) per mile.

II. For ocean navigation: (1) for a speed of at least 11 knots, 2 fl. 80 kr. (\$1.132) per mile; (2) for voyages between Trieste and Santos, 2 fl. (\$0.812) per mile; (3) for other voyages, 1 fl. 70 kr. (\$0.686)¹ per mile.

The total amount of mileage bounty payable in one year to the Austro-Hungarian Lloyd Company was limited to 2,910,000 fl. (\$1,181,460). The government agreed to pay the Suez Canal tolls in addition, and from 1890 to 1894 exempted all iron and steel steamers and sailing vessels from all trading and income taxes.

In order to encourage the Lloyd Company to build larger and more powerful ships, the government agreed to advance 1,500,000 fl. (\$609,000) in three equal payments on September 1, 1891, January 2, 1892, and January 2, 1893; the sum to be repaid by the company in five equal yearly payments of 300,000 fl. each, beginning January 2, 1902. The other more important regulations in the contract are: article (3) which forbids the company from altering its freight rates without the consent of the ministry of commerce; article (4) which binds the company to use every year at least 20,000 tons of coal derived from the Austrian mines and delivered at Trieste; article (5) which exempts the vessels

¹ For convenience the value of the florin is taken throughout at its present value of 2 kroner or about 40.6 cents. In fact its value fluctuated greatly until finally fixed by the adoption of the gold standard in 1892. In 1890 it was worth about 42 cents, in 1891, 38.1 cents, in 1892, 34.1 cents.

of the company from all consular fees, the same as "vessels of the Imperial navy"; article (7) which puts the company's vessels at the disposal of the naval and military authorities in case of war; article (8) which provides that the administrative committee of the company is to consist of eight members, of which the president shall be appointed by the emperor, and two other members by the ministry of commerce; and article (9) which requires that all officials of the company must be Austrian subjects,—naval officers, either active or retired to be given preference.

Trade and Navigation Bounties.—A general subsidy law was enacted December 27, 1893 and went into effect January 1, 1894 for a period of ten years. A large percentage of steam tonnage, most of which was owned by the Austrian Lloyd Steamship Company, was already receiving mail subventions, so called. The law of 1893 does not affect vessels under mail contract. To other Austrian vessels it grants either a trade bounty or a navigation bounty. The trade bounty is granted to all vessels making long voyages if at least two-thirds is owned by Austrian subjects and the vessel is not more than fifteen years old and is classed A1, or A2 in the Austro-Hungarian *Veritas*. The bounty is fixed for the first year after launching, at the following rates per ton: (1) for steamers of iron or steel, 6 florins (\$2.43); for sailing vessels of iron or steel, 4.50 fl. (\$1.83); (3) for wooden or composite sailing ships, 3 fl. (\$1.22). The rate is reduced five per cent every year after the first until the end of the fifteenth year when all payments cease. The trade bounty is increased ten per cent for vessels of iron or steel constructed after January 1, 1894 in domestic yards, and if at least one-half

of the material used is of domestic origin, the subsidy is increased twenty-five per cent. All vessels more than fifteen years old, entered July 1, 1893 on the register for foreign trade or long coastwise voyages, shall receive for five years from January 1, 1894, an amortization payment of one florin (\$.0406) *per annum* per net ton, if it be classed at least B2.

Vessels engaged in short coastwise voyages are given a navigation bounty of 5 kreutzers (2 cents) per net ton of capacity for every 100 nautical miles sailed.

Vessels lying idle for more than six months shall not receive subsidy or amortization fee during that time. The exemption from the production and income taxes was extended for a term of five years after January 1, 1894.

Vessels under government contract, and vessels belonging to an industrial establishment and used by them exclusively to transport material for their own consumption were made ineligible to receive subsidies.

The objects sought in enacting this law are set forth in the report of the special committee appointed by the Imperial Parliament in 1893. The committee ascribed the continued decline of the Austrian marine to two causes. First, there was no increase in demand for freights at Austrian ports, and second, foreign competition had forced many Austrian ship-owners out of business and was crowding the rest to the wall. They acknowledged the inability of Austrian shipping to compete with that of other countries, and for this reason and the fact that the people along the coast are poor, the committee recommended the giving of bounties. "What is wanted is to put a stop to the decline of our merchant fleet, to allow it to cope with foreign compe-

tition, and to secure for the inhabitants of our coast, wanted employment and profits in maritime pursuits."¹

Since the enactment of the law of 1893, no marked change in the condition of the marine is manifest, though the decline in sail tonnage is checked and the increase in steam tonnage is somewhat accelerated. Table No. XXII gives statistics compiled from the "*Oesterreichisches Statistisches Handbuch*" showing progress of the marine since 1885. Total tonnage declined constantly until 1895, but steam tonnage constantly increased so that the carrying capacity of the

TABLE XXII

(Amounts in 1000 tons)									
Austrian merchant marine					Austrian shipping in Austrian harbors				
Sail		Steam		Total	Entering		Clearing		
No.	Ton- nage	No.	Ton- nage	Ton- nage	Ton- nage	Per cent	Ton- nage	Per cent	
1885	8,768	165	120	77	242	6,041	86.47	6,022	86.35
1890	9,778	108	135	87	195	7,751	88.35	7,739	88.35
1893	10,887	90	144	97	187	8,557	89.91	8,548	89.85
1894	11,140	84	139	95	180	8,479	89.32	8,461	86.99
1896					196				
1898	12,134	62	174	146	208	11,592	91.41	11,591	91.37
1899	11,928	58	183	161	219	12,025	91.37	12,014	91.38
1900	12,440	53	199	190	244	11,898	91.05	11,898	91.02
1901	12,713	53	211	226	280	12,281	91.55	12,281	91.50

fleet increased instead of diminished. Since 1894 the steam tonnage has increased so rapidly as to more than counterbalance the continued decline in sailing tonnage.

This expansion is no doubt due in part, at least, to the law of 1893. The remarkably large per cent. of tonnage entering and clearing from Austrian harbors is not a correct indication of the condition of the Austrian mercantile fleet, for the figures include the coasting trade from which foreign vessels are excluded. A better indication of the real strength and activity of the marine is given by Table No. XXIII, compiled from information given in Commercial No. 4 (1901), British parlia-

¹ See U. S. special consular reports, Vol. XVIII, p. 8.

TABLE XXIII

Years	Austrian shipping engaged in long voyages ¹			Value of merchandise borne by Austrian ships	
	No. of vessels	Tonnage (1000 tons)	Value (in 1000 pounds)	(in 1000 pounds)	
				Imports	Exports
1890-----	1748	176	2500	19,917	17,678
1891-----	1723	173	3416	16,882	17,426
1892-----	1717	167	3416	18,000	15,750
1893-----	1720	166	3500	17,246	17,739
1894-----	1674	157	3416	16,910	15,716
1895-----	1693	165	3500	19,561	16,718
1896-----	1708	174	3900	18,596	16,395
1897-----	1705	189	4000	19,515	16,498
1898-----	1659	185	4000		
1899-----		196	4300		

¹ Both over-sea and long coasting voyages (foreign) are included.

mentary papers. This table gives statistics of the sea-going tonnage and sea-borne trade of Austria. It is to be noted that the total number of vessels engaged has steadily diminished, though the tonnage and the value have increased, the latter by a large amount. This all points to a strengthening of the marine. The last two columns, however, tell a different story. They show that the value of merchandise carried in Austrian ships has diminished. The difference between an *expensive* marine and a *valuable* marine is generally overlooked. The statistics show that Austria possesses the former kind, for while the amount of capital invested in ships was greatly increased, the value of the work done diminished. This decrease of service was not only absolute but relative as well for, from the year 1894 to 1899, the value of Austrian imports by sea increased from 271 million kronen to 312 million kronen, while the exports by sea increased from 192 million kronen to 259 million kronen. Even these figures do not express the full relative decline of the Austrian merchant marine, for they include the returns for the coasting trade, which is carried on mostly by very small vessels, unfit for long voyages. The actual proportion of the Austrian shipping

engaged in over-sea commerce is much smaller than indicated by the figures given and is practically confined to ships of the Austrian Lloyd Steamship Company.¹ Table No. XXIV gives the statistics of the Austrian Lloyd Company as given in the "*Oesterreichisches Statistisches Handbuch*" from year to year.

TABLE XXIV

	1890	1891	1892	1893	1894	1895
No. of ships	75	74	74	76	72	75
Gross tonnage	123,539	122,321	129,267	138,583	135,109	145,443
Perct. of total sea-going tonnage }	70.1	70.3	77.	83.4	85.5	87.8
Miles sailed (nautical) ² }					1,922	1,943
No. of Passengers	286,373	293,918	250,061	260,129	261,344	276,034
Freight, meter centners ³ }	6.22	5.74	5.35	6.65	7.25	7.56
Freight, value (gulden) ⁴ }	81.41	82.16	67.56	80.15	125.30	131.76
Gross receipts (gulden) ⁴ }	10.82	10.76	11.80	13.18	26.57	26.34
Net do. receipts (gulden) ⁴ }	.99	.54	1.92	2.29	4.32	1.36
Dividends, per cent.	0	0	1	4	4	4

	1896	1897	1898	1899	1900	1901
No. of ships	74	70	64	65	67	63
Gross tonnage	148,382	150,240	143,392	154,219	163,887	122,171
Perct. of total sea-going tonnage }	84.8	79.1	77.1	78.3	----	----
Miles sailed (nautical) ² }	1980	1971	1988	2015	2220	2192
No. of passengers	260,565	275,088	274,397	268,420	281,831	281,909
Freight, meter centners ³ }	7.71	8.84	9.48	9.68	10.47	11.07
Freight, value (gulden) ⁴ }	117.39	166.33	121.25	117.46	117.14	136.10
Gross receipts (gulden) ⁴ }	26.12	27.57	29.96	30.73	37.58	39.94
Net receipts (gulden) ⁴ }	.50	.80	5.10	5.32	5.61	5.94
Dividends, per cent.	1.9	3.05	3.81	3.81	4.	4.

¹ Formerly the Austro-Hungarian Lloyd.

² In thousands of miles.

³ In millions of centners. A centner equals 220.46 lbs.

⁴ In million of gulden. The gulden now equals 40.6 cents.

By comparing the values of merchandise carried by the company's fleet with the values of merchandise carried in all ships of Austrian registry (see Table XXIII), it will be seen that the former carry much less than one-half. Yet the company receives more than ninety per cent. of the bounties paid to Austrian shipping. From 1889 to 1896, the Austrian Lloyd steadily increased its proportion of the amount of Austrian sea-going tonnage, because of the favors shown by the government. Since the law of 1893 has become effective, the small vessels engaged in the coasting trade have increased quite rapidly, while the Lloyd has actually decreased its tonnage. This does not mean, however, that the company's monopoly has been broken by the competition of these small coasting vessels. On the contrary, the Lloyd's monopoly of over-sea and long distance foreign trade is so firmly established that it can dictate freight tariffs, and arrange its service for its own convenience. Its service is reputed to be the worst and most irregular in existence on any "regular" steamship line. Very frequently customers sending orders for Austrian wares specify "not by the Austrian Lloyd." There is no incentive for improvement for four reasons: (1) The company is drawing the full subsidy allotted to it; (2) the governmental favors to the company prevent domestic competition; (3) for similar reasons foreign competition is ineffective; (4) the present tonnage is more than sufficient to carry Austria's whole seaborne trade. The most objectionable feature about this monopoly is its semi-public character. The original intention in placing the company's direction so immediately in touch with the government, was to give the latter control over the affairs

of the company. In practice, however, it works out that the company controls governmental affairs.

As mentioned above, the bounties go, for the most part, into the Austrian Lloyd's strong box. The remainder goes to the various companies controlling the coast and river trade. The ten and twenty-five per cent additions to the trade bounty for vessels built in domestic dock-yards and of domestic materials finally go for the most part to the single large ship-building concern in Austria, the *Stabilimento Technico Triestino*, located at Trieste. Table No. XXV gives the amounts and distribution of the various bounties, according to information given in the British report before mentioned (Commercial No. 4). The Austrian government gives out

TABLE XXV

(In 1000 pounds)

Years.	Contract sub- ventions to the Austrian Lloyd	Special sub- vention to the Lloyd for parcels lost	Subventions for postal service in the Adriatic	Trading and trip boun- ties paid under law of 1893	Total
1890-----	46	--	4	--	50
1891-----	46	--	7	--	53
1892-----	242	5	11	--	258
1893-----	242	5	12	--	259
1894-----	242	5	12	12	272
1895-----	242	5	12	12	272
1896-----	242	5	15	12	276
1897-----	242	5	16	27	291
1898-----	242	5	16	46	310
1899-----	242	5	17	54	318

no statistics from which may be learned the actual cost to the state of the various subsidies. The figures given in the British report are not exact, but they give a fair idea of the amounts. It is impossible to determine exactly the amount going to the Austrian Lloyd, but besides the contract and special subsidies, it receives a large share of the trade and the navigation bounties in be-

behalf of its vessels which are not directly under contract for the mail service. The rate per mile received by the company's fleet is not large. According to its reports for 1893, it received from the government that year 2,874,861.30 fl. for mail service and 475,989.84 fl. refund of Suez Canal tolls, making a total of 3,350,851.14 fl. (\$1,360,445.56)* for traversing a distance of 1,600,000 miles, or about 85 cents a mile. This seems a very low rate, but it must not be forgotten that the company pays neither taxes on its ships and docks nor consular fees, and enjoys the privilege of borrowing large sums from the government without interest.

Conclusion.—The more enthusiastic advocates of non-interference on the part of governments assert that the protective measures taken by Austria have actually caused ship-building and navigation to decline more rapidly than before. With the figures before us it is difficult to make out that the decline has been more rapid since the laws of 1890, 1891 and 1893. The statistics show that the marine was decreasing before the bounties were given, while now it is increasing, and that by the addition of steam tonnage so that its carrying efficiency increases far more rapidly than is indicated by the mere additions to tonnage. In activity also as indicated by the entrances and clearances of Austrian shipping, there has been a constant increase (see Table XXII). It is only in the foreign trade where domestic shipping meets with foreign competition that Austria's mercantile fleet continues to decline. But this is exactly the vital point, and the decline here is so decided as to leave no doubt. The Austrian fleet engaged in this trade has increased greatly in market value and declined at the same time in commercial worth. Such a contradictory state of affairs indicates an abnormal

condition for its cause. Even if we did not know from the statistics that freight rates have continually climbed upwards, we would know deductively that such must be the case. Too much emphasis cannot be laid upon the difference between a *costly* mercantile fleet and a *valuable*, *i.e.*, an income earning fleet. If we evaluate the Austrian fleet by capitalizing the actual income earned in business, aside from government favors and bounties, direct and indirect, the value would be a great deal less than that estimated by the officials. It is clear that Austrian shipping is unable to hold its own in competition with other countries, and the bounties have certainly not strengthened its competitive power.

The bounties on construction, *i.e.*, the premiums of ten and twenty-five per cent offered for ships built in national yards and from domestic materials, have probably increased the output of the ship-building and allied industries somewhat. The greater part of the materials used is produced in Austria and the price of ship-plates is usually but little above the market price in England.

The greater part of Austrian tonnage is built abroad, chiefly in England, but there has been a considerable increase in the proportion of domestic construction since the law of 1893 was passed. This is a satisfaction to the Austrian people, a joy to the statistician, and a valuable asset to the *Stabilimento Technico Triestino*.

I have been unable to discover any convincing evidence to show that the national wealth has been increased by any of the bounties considered. It must be said that, by exempting shipping from taxation, the Austrians have shown a great deal more practical sense than is usually manifested by subsidy legislators. This is undoubtedly the cheapest form of subsidy and not at all difficult to administer, for industrial and commercial

corporations are not averse to exemption from taxation. At the same time, the government can soothe the discontented taxpayers with comparative statistics showing that Austria pays out less than Italy in subsidies, though in fact the exact opposite is emphatically true. The people must pay the bounties whether direct or indirect, and as yet the only return they have received is a comforting consciousness that the imperial flag floats over somewhat more monopoly owned tonnage than before. As all estimates of value are purely subjective, no doubt this satisfaction of a long felt want must be reckoned as a part of the national income,—a valuable national asset.

Since Austria has no foreign colonies and almost no sea-coast, the subsidies can hardly be defended on the grounds of imperial policy. In case of war the subsidized merchant marine would be the most vulnerable point of attack for a really maritime power. In the case of Austria, as of Italy, a false national pride has dictated the policy. It is expensive, it does not increase the marine to any considerable importance, because the amount expended must be limited by the burden of taxation the people are able or willing to bear, and it can not be shown in any case that a large merchant-marine depending on equally large subsidies to keep it afloat, even if attained, is a very desirable national acquisition.

HUNGARY

Bounties on navigation. Apart from the bounties granted by the imperial government of Austro-Hungary, the kingdom of Hungary gives bounties to Hungarian ships. The law No. 22 of June 30, 1893 provides for (1) a premium on purchase and (2) a subsidy based on mile-

age traversed. To receive bounty a vessel must be owned to the amount of at least two-thirds by Hungarian subjects. The premium on purchase is given on the basis of the net tonnage for a term of fifteen years from the date of launching. The premiums for the first year are: (1) for sailing vessels employed in long distance coasting trade, 6 kronen (\$1.218) per ton; (2) for sailing vessels employed in deep sea trade, 9 kronen (\$1.827) per ton; (3) for steamers in long distance coasting trade, 9 kronen per ton; (4) for steamers in deep sea trade, 12 kronen (\$2.436) per ton. In each succeeding year after launching the premium is reduced seven per cent. of the premium for the preceding year.

The special subvention (mileage) granted to Hungarian vessels in proportion to the length of voyages made by them in the interests of national commerce, whether to or from Hungarian ports, is fixed at 5 hellers (1.01 cents) per ton (net) for every 100 nautical mile sailed. This bounty is also granted for fifteen years after the date of launching.

The premium on purchase can be claimed by vessels of iron or steel, built in accordance with the requirements of the Bureau *Veritas* or the English Lloyds and rated first class. The mileage subsidy is given only for voyages to places where no company in receipt of state subvention is obliged to maintain regular communications, and it is not to be given for petty coasting trade. Neither subsidy is to go to vessels owned by industrial establishments for the transport of materials necessary for their own industry. The total amount of the subsidies are to be fixed from year to year by the Hungarian Parliament, and, until further regulation, are not to exceed 200,000 kronen (\$40,600) *per annum*.

The vessels of Hungarian register are entitled to the

following additional benefits: (1) All arrears and interest accumulated under the head of dues, additional or ordinary, on the earnings of such vessels up to the end of 1892 shall be abolished. (2) Such sailing vessels as were registered at the end of 1892 are exempted from the tax on trade for six years. (3) Shipping companies that are not bound by contract with the state are exempted for ten years, (counting from the date of launch of the vessel in question) from the taxes and surtaxes upon the earnings of their steamers employed in deep sea trade or long distance coasting trade, provided that such steamers were registered before 1892. The earnings of all vessels acquired after January 1, 1893 and employed in these trades are exempted from all taxes, provided they are qualified to receive the state bounties above mentioned. (4) No taxes or dues are levied on the transfer of new vessels. Joint stock companies of navigation are exempted from the stamp tax and other duties on documents, contracts, and other papers.

For the benefit of sailing vessels unqualified to receive the premiums on purchase because of age, a subsidy of 2 kronen (40.6 cents) per ton (net) was given for five years after the date when the law went into effect. The vessels must be under twenty-five years old and classed at least B2. The conditions as to voyages were the same as for newer vessels. This law went into effect July 1, 1893 for ten years.

Bounties on Construction.—A law No. 34 of 1895 going into effect January 1, 1896, grants bounties on construction within the kingdom of Hungary as follows: (1) for iron and steel hulls, per ton (net) of measurement, 30 to 60 konen (\$6.09 to \$12.18); (2) for wooden ships per ton (net) of measurement, 10 to 25 kronen (\$2.03 to \$5.075); (3) for engines and all

sorts of auxiliary machinery, per ton of materials used, 10 to 15 kronen (\$2.03 to \$3.045); (4) for boilers and pipes per ton of material, 6 to 10 kronen (\$1.218 to \$2.03). The exact rate between the limits fixed is determined by the proportion in which foreign or national materials are used,—construction with all foreign material receiving the lowest, construction with all domestic material the highest bounty. Ship-building firms in order to claim the bounties must submit to the control of the minister of commerce. The total amount paid out yearly must not exceed 200,000 kronen (\$40,600).

In beauty of structure and logical completeness in every detail, this law surpasses any bounty act we have yet studied. In its practical working, however, it is, unfortunately, like the perpetual motion mechanisms which take up so much space in the patent office at Washington. It doesn't "go." All the ships of the Hungarian merchant marine were built in English dock-yards,¹ consequently no bounties have been paid and the official statistician is debarred from the innocent joy of showing in figures how much prosperity has resulted from this beneficent law.

Table No. XXVI, compiled from information given in Commercial No. 4, gives the payments of subsidy under the law of 1893 and under special contracts, together with the tonnage of the whole Hungarian marine. The amount of the subsidies is so palpably out of all proportion to the size and importance of the marine, even of a subsidy-giving country, that comment is unnecessary. It was impossible to learn every specific expenditure, so that the total column is not merely the sum of the various amounts given in the columns preceding. The government has in ten years

¹See Parl. papers, Com. No. 4 (1901), p. 8.

expended more than enough to buy the whole marine outright, and in spite of the disproportionately large subsidies, or because of them, the tonnage has declined by about one-eighth since 1893. It is probable, however, that the carrying capacity has considerably increased, but as we have already shown, increased capacity does not signify increased service.

TABLE XXVI
Special Subventions to Steamship Companies
(In 1000 pounds)

Years	Bounties on tonnage. Law of 1893	Adria Co.	Hungaro-Croatian Co.	Schwartz Line	Hungarian Levant Co.	Total bounties about	Total tonnage of merchant marine (in 1000 tons)
1890-----	--	25	3	.6	----	63	53
1891-----	--	25	3	2.3	----	65	53
1892-----	--	47	8	2.9	----	59	61
1893-----	1	47	9	2.9	----	62	69
1894-----	4	47	10	3.1	----	65	66
1895-----	4	47	10	3.1	----	65	64
1896-----	3	47	11	3.1	----	66	63
1897-----	5	47	14	4.1	----	71	66
1898-----	4	47	16	4.1	6	79	62
1899-----	4	47	16	4.1	7	80	----
Totals----	28	431	103	35.8	13	678	

SPAIN

Little could be learned of the bounties given by Spain. By an act of June 26, 1887, the Spanish government granted postal subsidies amounting to 9,840,000 pesetas (\$1,868,120) a year to various steamship lines carrying mails to Cuba, Porto Rica, the Philippines, and other Spanish possessions. Since the Spanish-American war, no information could be obtained re-

garding these subsidies. The law of 1895 granted a construction bounty of 40 pesetas (\$7.72) per gross ton on wooden vessels, 75 pesetas (\$14.48) per gross ton on iron and steel steamers, and 55 pesetas (\$10.62) per gross ton on vessels of mixed construction, and sailing vessels of iron or steel. Table No. XXVII gives the tonnage of the Spanish merchant marine for different periods. Vessels of 50 tons and upwards are included.

TABLE XXVII
(Amount in 1000 tons)

Year	Sail tonnage	Steam tonnage	Total
1880	326	233	560
1890	210	407	618
1895	193	526	719
1896	191	564	756
1897	158	499	657
1899	151	555	707
1900	94	714	809

The Spanish marine slowly increased up to 1895. The year after the passage of the bounty law is marked by a rapid expansion, which was followed by a very much more rapid decline. To ascribe these fluctuations to the bounty would be ludicrous. The decline was probably due to the increased taxes and business depression brought about by the colonial wars which greatly increased governmental expenditures and cut off a large part of the colonial trade. During the war with the United States, Spain lost eighteen large steamers of 31,316 tons. The results of the war seem to have been to the advantage of Spain. First, she got rid of the chronic state of warfare existing in her colonies; second, the \$20,000,000 paid by America for the Philippines greatly aided the development of her domestic industries; and, third, the shock of her losses awakened Spain to the necessity of developing her national resources. The

loss of her colonies greatly diminished exports of manufactured articles for a time, but the trade is rapidly recovering. In conjunction with this general betterment of conditions, the marine has grown with great rapidity.¹

RUSSIA

The oldest and most important subventioned line in Russia is the Black Sea Navigation Company with headquarters at Odessa.² It was founded in 1856 under the protection of the government, which furnished part of the necessary capital and gave land for docks, etc. The company now owns 77 steamers of about 190,000 gross tons, 36 of which are mail steamers. In earlier years the subsidy was 1.9 million rubles. In 1899 it was 650,000 rubles (\$334,750).³ Besides this mileage subsidy, the government pays back the Suez canal dues amounting to 200,000 rubles (\$103,000) in 1899. The company has numerous lines in the Black Sea, maintains a service to the Levant and Alexandria, besides lines from Odessa to St. Petersburg, Marseilles, and Vladivostok. On its capital of about ten million rubles it paid a dividend of six per cent in 1901.

The next line in size and importance is the so-called Russian Volunteer Fleet, which is a peculiarly Russian institution. It was founded in 1878 by private contributions as an auxiliary war fleet. Its management is so closely associated with the Russian bureaucratic government that it is difficult to say if it is a private or

¹ See *Handelsarchiv* for the years in question under "Spain."

² Greve, W. *Seeschiffahrts-Subventionen*, p. 110; Com. No. 4 (1901), p. 81.

³ The ruble fluctuated greatly in value until 1896 so it is impossible to estimate the value of these earlier subsidies in our money.

a state institution. The steamers are built for cruising, not for commerce. With a gross tonnage of about 130,000 tons, the carrying capacity is only about 50,000 tons net. Under the present regulations, which continue to 1912, the fleet must make eighteen round trips yearly between European ports and ports of the Far East. The subvention is fixed at 600,000 rubles (\$309,000) per year, and in 1899 the repayment of canal dues amounted to another 600,000 rubles.

The estimates of the department of trade and industry of the ministry of finance for 1901 assigned 3,086,070.60 rubles (\$1,589,326.36) for the encouragement of Russian navigation.¹ It was apportioned as follows: (1) To the Black Sea Navigation Company mileage at 1.75 to 2 rubles per mile (1891 to 1905), 616,000 rubles (\$317,240), mileage for Black Sea Bulgaria Line (1895 to 1905), 39,084.50 rubles (\$20,128.52), a total of 655,084.50 rubles (\$337,368.52); (2) To the Amur Navigation Company for maintenance of steam communication in the Amur Basin (1894-1903, at the rate of 1.37 rubles per verst, 183,532.50 rubles (\$94,519.24). From 1904 to 1908 this amount is to be diminished by 5 per cent. (3) To Feodoroff for service between Vladivostok and Russian Island, (to 1903), 6,000 rubles (\$3,090). (4) To the Black Sea Danube Steamship Company mileage (1898-1901), 313,180 rubles (\$161,287.70). (5) To the Archangel-Murman Steamship Company mileage at the rate of 3.33 rubles per mile, for regular service in White Sea and Frozen Ocean (1896-1915), 227,464 rubles (\$117,143.96), for regular service between Petchora and Archangel, (1898-1915), 13,596 rubles (\$7,001.94), a total of 241,060 rubles (\$124,145.90). (6) For regular service on the Petchora River, 10,000 rubles (\$5,150).

¹ Com. No. 4, (1901), p. 81-83.

(7) To Glotoff for additional sailings on the Lena River (1900-1907), 42,213.60 rubles (\$21,740). (8) Subsidy for service on one branch of the Amur River, 35,000 rubles (\$18,025). (9) Subsidy to Volunteer Fleet, 600,000 rubles (\$309,000). (10) Return of Suez Canal dues paid by Russian steamers, 1,000,000 rubles (\$515,000). In addition to these subsidies, the government pays the following postal subventions: (1) To the Amur Navigation Company, mileage for regular postal service (1898-1902), 66,467.50 rubles (\$34,230.76). (2) To the Caucasus and Mercury Company, mileage for regular postal service on the Caspian Sea, 289,390.40 rubles (\$149,036.06). (3) To the Kiakhta Company, mileage for regular postal and passenger service on Lake Baikal, 33,938 rubles (\$17,478.07). (4) To Glotoff, for regular postal service on Lena River (1896-1908), 50,737.50 rubles (\$26,129.81). Total of postal subventions 440,533.40 rubles (\$226,925.20). Grand total, subsidies and postal subventions, 3,526,604 rubles (\$1,816,251.56). In 1899 the amounts were 2,993,533 rubles (\$1,541,669.50) for subsidies and Suez Canal tolls, and 439,467 rubles (\$226,325.51) for postal subventions, making a grand total of 3,433,000 rubles (\$1,767,995). According to the British reports, the amount was £239,993 in 1890, £260,037 in 1894, £364,756 in 1899, and £374,701 in 1901.¹ This shows a rapid increase in the amounts expended to encourage shipping, for the postal subventions have remained practically constant.

In attempting to trace the effect of these subsidies upon the merchant marine, of course, all payments for inland navigation must be excluded. This excludes all the postal subventions, as well as the subsidies for river and harbor navigation. The payments to be con-

¹ Com. No. 4 (1901).

sidered then are those made to the Black Sea Company, the Black Sea-Danube Company, the Archangel-Murman Company, and the Volunteer Fleet, together with the Suez canal tolls refunded, making a total of 2,809,324.50 rubles (\$1,446,802.12) in direct bounties. Not all of the refunded tolls go to the Volunteer Fleet and the Black Sea Company, as all Russian vessels receive reimbursement of tolls in full on arrival at or departure from a Russian port in the Far East, and two-thirds in other cases. As a further measure of encouragement, dating from July 1, 1898, to continue ten years, vessels purchased abroad, if destined for the foreign sea-borne trade, are exempt from the exorbitant duties levied on such vessels. The duties on foreign-built steamers to be used in inland navigation are not so high as formerly, and are made payable in installments extending over five years. In 1899 the coasting trade, from which foreign vessels are excluded, was made to include navigation between any two Russian ports in any seas. At the same time, it was required that vessels engaged in coasting trade be manned exclusively by Russian seamen and officers.

No bounties on construction and no general bounties on navigation further than the return of the Suez canal tolls are given by Russia. The growth of the fleet engaged in foreign commerce is shown in Table No. XXVIII for the period 1896-99 inclusive. During

TABLE XXVIII ¹
(Amounts in 1000 tons)

Years	Steam		Sailing		Total tons
	No.	Tons	No.	Tons	
1896.....	341	128	1628	147	276
1897.....	377	158	1684	150	309
1898.....	391	166	1755	155	322
1899.....	410	182	1674	146	328

¹ From Com. No. 4 (1901).

this time the Russian tonnage actually engaged in the trade with European Russia, both foreign and domestic, decreased absolutely, though not so much as foreign tonnage. (See Table No. XXIX, which gives the number and tonnage of all vessels entered and cleared from the ports of European Russia from 1898 to 1901 inclusive.) The meagerness of accurate informa-

TABLE XXIX¹
(Amounts in 1000 tons)

Years	Entered				Cleared.			
	Russian No.	Tons	Foreign No.	Tons	Russian No.	Tons	Foreign No.	Tons
1898...	1261	736	4505	3348	1443	877	7789	6606
1899...	1166	734	4729	3791	1285	683	7153	5987
1900...	1114	716	4335	3373	1383	699	7712	6467
1901...	1109	727	3987	3049	1349	713	7441	6823

¹ Compiled from Statesman's year book, 1902 and 1903.

tion, however, does not permit a conclusion to be drawn. It is at least possible that, in the case of Russia, possessing as she does immense undeveloped resources, with a large but ignorant and unprogressive population, a protective policy rationally carried out would not only increase the national wealth more rapidly, but would at the same time lead the people to a higher economic level which they could scarcely reach at all if left to work out their own economic salvation. In this development, the great companies could not monopolize all the *benefits*, though they would undoubtedly absorb all the direct *bounties*. But it is impossible to believe that the present protective policy of Russia is either rational or just. No financial Moses has yet arisen to lead this people out of its economic bondage.

HOLLAND

The home government of the Netherlands gives no bounties on construction or navigation, but subventions for steamship lines for the conveyance of mails. The company receiving the largest subvention is the *Stoomvaartmaatschappij Zeeland* for the daily conveyance of the mails to England (Vlissingen to Queensborough). The other subventions are paid for services to the Dutch colonies in the East and the West Indies. The *Koninklijke West-Indische Maildienst* performs the service from Amsterdam to Paramaribo and Curaçoa. The other two lines run to the Dutch East Indies and the costs of their subventions are divided equally between the home and the colonial government. The *Nederland* line runs between Amsterdam and Batavia and the "*Rotterdamschen Lloyd*" runs between Rotterdam and Batavia.

Independent of the home government, the Dutch East-Indian government gives general mileage-subventions for the maintenance of regular communications with the various ports of the East Indies. Most of the sums expended go to the *Koninklijke Paketvaart Maatschappij* (Royal Packet-boat Company). The rates until January 1, 1899, paid to this company for the different services it performed varied from 1.50 florins (\$0.603) to 20 florins (\$8.04) per geographical mile¹ according to the importance of the line. Under the new contract the rates are between 1.50 fl. and 10 fl. per geographical mile.

Table No. XXX gives the cost of these five regular services from 1889 to 1898. The contracts with the Royal Packet-boat Company did not go into effect until

¹ The Dutch geographical mile = 4 English geographical or nautical miles.

January 1, 1891. On January 1, 1899, the new contract went into effect and the total subvention paid to the line was greatly reduced, the contract providing in round numbers 375,000 fl. a year. Besides the amounts given in the table, which are for contract services only, The Royal Packet-boat Company received considerable sums from the colonial government for its non-contract voyages. The largest amount received was in 1894 with a round 957,000 fl.¹ In 1901, the colonial government made arrangements to subsidize a line of steamers between Java, China and Japan, the amounts to be

TABLE XXX

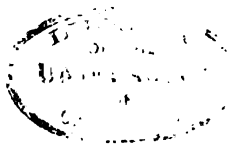
(Amounts in thousands)

	Royal West-India Mail Service florins	Zeeland Co. florins	Nederland Co. ² florins	Rotterdam Lloyd ² florins	Total subventions for mail service simply florins
1889	35	301	161	32	531 = \$213
1890	36	302	158	32	529 = 212
1891	36	302	160	33	532 = 214
1892	36	315	163	35	550 = 221
1893	36	310	150	83	580 = 233
1894	36	303	132	130	602 = 242
1895	36	390	170	170	768 = 308
1896	45	304	213	213	777 = 312
1897	46	304	213	223	788 = 316
1898	47	440	210	221	919 = 369

	Miles run	Amounts paid by Dutch East-Indian Gov. to Royal Packet Co. Subventions paid florins
1889	--	---
1890	--	---
1891	90	650 = \$261
1892	95	671 = 269
1893	94	696 = 280
1894	94	656 = 264
1895	94	659 = 265
1896	95	704 = 283
1897	94	666 = 267
1898	89	648 = 261

¹ Greve, W. Seeschiffahrts-Subventionen der Gegenwart, p. 107.

² One-half of these subventions are paid by the Dutch East Indian government.



300,000 fl. the first year, 250,000 fl. the second and 200,000 fl. the third year.¹

The Dutch home government does not regard these subventions as in any way protective or favorable to shipping. The whole purpose of the sums expended is the payment for carrying the mails. The contracts are not let openly, but there is no reason to think that the payments are in the nature of subsidies. The government allows the ship-owners to look out for themselves. On account of unprogressive business methods, the shipping of Holland has retrograded somewhat in comparison with some other countries. At the beginning of the 90's Dutch ships carried thirty per cent of the sea-borne trade of Holland; in 1900 the proportion had fallen to twenty-five per cent. Tonnage, however, has increased slightly and, as it consists mostly of steam tonnage, the marine is very efficient.² The slight relative decline in the movement of national trade is in all probability only temporary.

SWEDEN AND NORWAY

The governments both of Sweden and of Norway grant small postal subventions for the furtherance of the mails, and also state contributions for the furtherance of commerce and navigation. In addition, shipping is exempt from taxation in both countries, so that the sum total of benefits conferred upon the merchant marine is by no means so insignificant as is generally supposed. The amounts paid by each of the two governments for the period 1890-99 are shown in Table No. XXXI. The amounts paid by Norway have been

¹ Greve, p. 108.

² See *Handelsarchiv* under Nederland.

TABLE XXXI ¹

(In 1000 pounds)

Years	Subventions paid by Norway			Subventions paid by Sweden		
	Postal subv.	State contrib.	Total	Postal subv.	State contrib.	Total
1890-----	3	--	3	5	1.8	7
1891-----	6	14	20	5	1.7	7
1892-----	6	14	20	5	1.6	7
1893-----	6	14	20	6	.3	7
1894-----	6	14	20	5	.4	6
1895-----	7	17	24	5	.2	5
1896-----	8	19	27	5	.4	5
1897-----	8	18	26	7	.2	7
1898-----	9	18	27	9	1.0	10
1899-----	9	18	28	16	.4	17

¹ Compiled from information given in Commercial No. 4 (1901).

and still are considerably higher than the payments made by Sweden. The postal subventions are in both countries no more than mere freight tariffs for mail transport. The contributions are paid solely to promote navigation, but they are so small in amount that it is absurd to attribute the growth of Scandinavian shipping to them. The management of the English Wilson Line trading with Norway complains of the severe competition from the Norwegian steamers running between Norway and Newcastle.¹ They ascribe the success of the Norwegian competition to the subventions. It is far more likely the result of efficient management coupled with the well-known skill and enterprise of the Norwegians as seamen. Of all maritime nations, Norway has by far the largest percentage of sea-faring population; to every 1000 inhabitants she has 1162 tons of shipping, while England in second place has only 634 tons.² The meager resources of the land are insufficient to support the population; thus

¹ Report of select com. (1901), p. 171.² See Norway, Official publication for the Paris exposition 1900, p. 405.

they are compelled to turn to the sea for their livelihood. The Scandinavian sailors are the best and cheapest in the world. They make up a large percentage of the crews working English, American, and German ships. Wood abounds and the greater part of the merchant fleet consists of wooden sailing craft of domestic construction. The shipping laws put no restrictions upon owners, so a large number of the steam vessels are purchased in England, many of them at second hand. The fleet is of necessity cheap, for there is not much capital in the country ; but it is the result of steady development and is therefore exactly suited to the needs of the country. The exports from Norway and Sweden consist of lumber, iron ore and other bulky and heavy articles of little worth. Freight rates in consequence must be very low. A "Deutschland" in this trade could not earn enough to pay for the coal she would consume. By reason of her surplus of cheap, efficient labor force, and her cheap, serviceable fleet, Scandinavia is prepared to do the cheap freighting of the world better and cheaper than any rival. Some other nations by subsidizing have attempted to drive her from her one great national industry. Table No. XXXII shows the changes in tonnage of both Norway and Sweden for a series of years. Total tonnage is decreasing in Norway while it is increasing in Sweden. In both countries the

TABLE XXXII

(Amounts in 1000 tons)

Years	Sail	Norway Steam	Total	Sail	Sweden Steam	Total
1880-----	1460	58	1518	461	81	542
1890-----	1502	203	1705	369	141	510
1895-----	1283	321	1604	301	181	483
1897-----	1169	383	1552	289	234	524
1900-----	1002	505	1508	289	298	587
1901-----	935	531	1467	288	325	613

sailing tonnage is declining, though in Sweden very slowly. It is, of course, absurd to ascribe these changes to the effects of the subventions. The exemptions of shipping from taxation may, however, have considerable effect in keeping up the tonnage.

JAPAN

Earlier Legislation. The first steamship company in Japan was founded in 1869, by Jwasaki Yataro. With the aid of liberal grants from the government, this remarkable man established steamboat communication between the different Japanese ports, as well as with the continental ports of Siberia, China, and Corea. He possessed a complete monopoly of steam navigation in Japan, and pushed his advantage to the utmost. The governments ought to break the monopoly, which it had created, by founding a rival undertaking. After a short period of warfare, Jwasaki persuaded the new company to unite with him. Thus was founded the *Nippon Yusen Kaisha*, which is still by far the most powerful steamship company in Japan. It is a noteworthy fact that Japan learned the art of combination in the sea transport business before any other people.

In recent years Japan has taken active measures to encourage ship-building and navigation. Previous to 1896 the only aids given to Japanese shipping were the postal subventions, amounting to 945,000 yen yearly in 1890 and 1891, and 930,000 yen yearly for the subsequent years until the new law went into effect.¹ The law of October 1, 1896 granted both construction and navigation bounties and provided for a greatly extended postal service, the vessels performing postal service to

¹ Com. No. 4 (1901).

receive therefor the regular navigation bounties and no more. The most important provisions of the law are given below.¹

Any company composed of Japanese subjects exclusively as members and share-holders which shall establish a ship-yard conforming to the requirements of the minister of state for communications, and shall build ships, shall be entitled to receive bounty for the encouragement of ship-building as follows : for vessels of over 700 tons and under 1,000 tons burden 12 yen (\$5.976) per gross ton ; for vessels over 1,000 tons burden, 20 yen (\$9.96) per gross ton. A further bounty of 5 yen (\$2.49) per horse power is granted for engines constructed in Japan. Only Japanese materials may be used in vessels for which construction bounties are paid, unless permission to use foreign materials be obtained from the minister of communications. The estimated expenditure under this article for 1899 was 277,250 yen (\$138,070.50).

The general navigation bounties are granted only on steam vessels owned exclusively by Japanese subjects and plying between Japanese and foreign ports. The rates are as follows : 25 sen (about 12½ cents) per gross ton per 1,000 miles run for a ship of 1,000 tons, steaming at the rate of 10 knots an hour. Ten per cent is added to this rate for every additional 500 tons, and twenty per cent for every additional knot in speed until the limits of 6,000 tons and 17 knots are reached. Foreign-built ships less than five years old were admitted to full navigation bounties. Fifteen specific postal routes were established by this law calling for an expenditure of 4,964,404 yen (about \$2,482,202) per annum when fully operative. As mentioned above, the payments for postal

¹ *Handelsarchiv*, 1896, under Japan ; Special consular reports, vol. XVIII.

service were computed at the mileage rate given for navigation. The more important lines established under this law were the line to Europe, two lines to the United States, and one to Australia.

The effect of this law was felt immediately. The *Nippon Yusen Kaisha* increased its capital from 8.8 million yen to 22 million yen and ordered from England eighteen large freight steamers, aggregating 88,000 tons. The *Osaka Shosen Kaisha* ordered thirteen steamers and other companies doubled or trebled their fleets.¹ It was thought that one had only to build steamships in order to become wealthy. The overproduction of ships forced freights down, and this, coupled with the economic crisis of 1898-99, brought severe losses upon the shipping companies, notwithstanding the large subsidies. At the same time the government felt the necessity of contracting these expenditures for subsidies, which were rapidly growing beyond all reasonable limits. The sums expended for bounties on construction and subsidies to navigation including the postal contract lines were as follows: 1896, 1,027,275 yen; 1897, 2,127,086 yen; 1898, 4,132,123 yen; 1899, 5,846,956 yen; a total of 13,133,440 yen (about \$6,566,720).² In proportion to the resources of the country this is an enormous expenditure.

Laws of 1899 and 1900.—To restore the disturbed equilibrium, a law was enacted in March, 1899, reducing the navigation bounties upon foreign-built ships by one-half, at the same time fixing the subsidies to the postal lines at certain yearly sums. The *Nippon Yusen Kaisha* receives for ten years from January 1, 1900, a

¹ *Revue Maritime*, 1901, p. 1953 f. from Greve, W., p. 59.

² *Com. No. 4* (1901), p. 51.

yearly subvention of 2,673,874 yen (\$1,336,937) for a fortnightly service to London and Antwerp. The steamers, twelve in number, must be at least 6000 tons with a speed of not less than 14 knots. The same company receives 654,030 yen per annum for a monthly service to Seattle, with three steamers of at least 6000 tons each and a speed of 15 knots. Since 1901 the company of its own accord made this service fortnightly. For the monthly service via Manila to Brisbane, Sydney and Melbourne, with three steamers of at least 3500 tons and 14 knots, the company receives 525,657 yen per annum. By a law of Feb. 23, 1900, the postal services were extended and the *Nippon Yusen Kaisha* received an additional 446,300 yen for a line to Bombay and services to various East Asiatic ports, so that its yearly subventions amount to 4,299,861 yen (about \$2,149,930).

The *Osaka Shosen Kaisha* receives 341,500 yen per annum for maintaining various services to China, Korea and South China. The contracts hold until 1905 and 1911. The *Tokyo Kisen Kaisha* receives until 1910 a subvention of 951,700 yen for a monthly service to San Francisco with three steamers of at least 6000 tons each and a speed of 17 knots. By arrangements with the American Pacific Mail Steamship Company the ships of the two companies make their voyages alternately, thus giving fortnightly communication between Japan and San Francisco. The establishment of regular services by way of Hong Kong to Manila, Java and eventually to Australia is intended. Finally the *Daito Kisen Kaisha* receives 54,750 yen per annum for maintaining a line to Shanghai. Thus the postal subventions alone amount to about 5,647,811 yen (\$2,823,905) a year. I have been unable to learn what amounts

have been distributed as general navigation subsidies, or as construction bounties under this law, but they would scarcely bring the total expenditure in subsidies above six million yen.

Conclusion.—These laws have had immediate and far-reaching effects. The *Nippon Yusen Kaisha*, as we have seen, made arrangements to exploit the bounty of 1896 with the greatest vigor. This line had a tonnage in 1891 of less than 100,000 gross tons; in 1901 its tonnage was 218,361 gross tons.¹ Other shipping companies show an even greater per cent. increase. The increase in the Japanese marine is shown in Table No. XXXIII. This rapid growth was

TABLE XXXIII
Tonnage of Japan
(In 1000 tons)

Years	Sail	Steam	Total
1880	48	41	89
1890	51	93	145
1895	41	213	254
1896	25	227	253
1897	45	273	318
1898	170	477	648
1899	286	510	796
1900	320	543	863

not merely an addition to the idle tonnage as in the case of Austria and some other countries. From 1890 to 1899 the foreign commerce of Japan increased more than four-fold. During the same period the share of Japanese shipping in the foreign trade of the empire increased from about 22.2 per cent. to about 36.4 per cent. All this indicates a marvellously rapid development, but it will not do to ascribe all this, as some do, to the working of the subsidies. Those who possess a deep and abiding

¹ Jour. Stat. Soc. vol. 64 (1901), p. 484.

faith in the efficacy of subsidies, and who use statistics merely as food to nourish this faith, derive much strength and comfort from the above figures. To attempt overthrowing this faith is useless. A closer scrutiny of the history, however, compels an impartial mind to recognize that the testimony of the facts is not at all in favor of the subsidies.

Shipping grew as rapidly before the law of 1896 as after in spite of the monopolistic power of the *Nippon Yusen Kaisha*. Since 1868 Japan has experienced an economic revolution even more astounding than its political revolution. The methods and machinery of production were changed with incredible rapidity. In a few years the nation rushed from barbarism into civilization through the power of its imitative genius. But the progress was not swift enough to satisfy the leaders and they imitated the protective methods used in western lands to stimulate progress. The first experiment with state aided steamship navigation created a monopoly that exploited both government and people. The attempt to fight the devil with fire by creating another state supported steamship company to compete with the first led to a "community of interests" arrangement that must excite the admiration of the king of Wall street promoters. But the ambitious Japanese leaders were determined to have immediately all the institutions possessed by European nations, and accordingly long distance postal lines were established by the law of 1896. There is no doubt that the lines established by this law are now running profitably. It is equally certain that the law was in part responsible for the subsequent stagnation in trade and industry which led the government to modify this extravagant measure. The laws of 1899 and 1900 provide for very large expenditures in propor-

tion to the resources of the country and the value of money in relation to commodities and services, but the expenditures are held within limits so there can not be a repetition of the too rapid multiplication of ships. Whether these payments are purely subventions for postal service, or partly subsidies, they have attracted capital into shipping, and the economic development of Japan, her geographical situation, resources, and the character of her population made the development permanent. Shipping would have developed anyhow,—in fact was developing with great rapidity. The government merely gave form to the maritime undertakings of the capitalists. It will always be a question if the government gave the best direction,—whether the development would not have been sounder, though less rapid, had the capitalists been left to decide for themselves what lines to establish.

OTHER COUNTRIES

DENMARK

Denmark paid the following subsidies during the year 1896-97.¹ (1) To the Esbjerg-Parkeston Line, 187,270 kroner (\$50,190.36) as compensation for the lower freights charged by the company on dairy produce and fish exported to England. (2) To the Gjedser-Warnermunde Line 71,200 kr. (\$19,081.60), a fixed subsidy. (3) To the Kalundborg-Aarhus Line, 52,295 kr. (\$14,015.06). This line runs between Danish ports only. If the freight charges do not amount to a certain sum, the state makes good the deficit, which is set down in the budget as 50,000 kr. but amounted to the above sum in

¹ See Commercial No. 2 (1898), p. 18 (Brit. parl. papers).

1896-97. (4) To the Copenhagen-Faroe-Iceland Line, 40,000 kr. (\$10,720), a fixed yearly subvention for carrying the mails, etc. (5) To the Copenhagen-Malmoe (Sweden) Line, 8760 kr. (\$2347.68), a fixed monthly sum of 730 kr. for carrying the mails. (6) To the Esbjerg-Grimsby Line since September 1, 1897, a fixed yearly subsidy of 60,000 kr. (\$16,080). Wharfage dues at Esbjerg are also remitted, being estimated for the year in the budget at 15,000 kr. (\$4,020). As will be noticed only two of these subventions are for carrying the mails, viz.: to Iceland and to Sweden, the other payments are to encourage trade especially export trade. As the payments are made directly for reductions in freight rates which are strictly supervised by the government, they accomplish their purpose. By this arrangement the subsidies are not really shipping subsidies, but are subsidies to export. Whether any portion of the subsidies goes to benefit the producers could not be learned.

The amount of the fixed subsidies paid by Denmark is 179,960 kr. (\$49,229.28). The total of all subsidies paid in 1896-97 was 419,525 kr. (\$112,432.70). The merchant marine of Denmark in 1900 numbered 3773 vessels of 408,440 tons, 521 steamers of 250,137 tons, and in 1901, 3841 vessels of 416,548 tons (536 steamers of 259,360 tons).

BELGIUM

The Belgian government pays neither postal subventions nor bounties of any kind to domestic shipping. Before 1852, subsidies were paid for ship-building.¹ In order to encourage the commerce of Antwerp, subsidies are paid to three foreign lines: to the North German

¹See Report of select committee on S. S. subsidies, (Parl. papers, 1901), p. 5.

Lloyd on its East Asiatic and Australian lines, 80,000 fr. (\$15,440) a year and repayment of light and pilotage dues; to the German-Australian line, 1500 fr. (\$289.50) for each call to or from Australia, outward bound vessels to call every four weeks, and inward bound vessels not less than six and not more than thirteen times a year, so that the maximum subvention for one year can not exceed 39,000 fr. (\$7527). The Danish steamship company, *Forenede Dampskibsselskab* receives no direct payments, but only certain facilities such as exemption from harbor and light dues, etc. In the case of the North German Lloyd Company at least, the payment was granted under threat of making the rival Dutch port of Rotterdam the port of call if the required subsidy was not forthcoming. This method of collecting subsidies bears a close resemblance to the practices of railroad construction companies in our own country in early times. No doubt Antwerp would lose more than the amount of the subsidies by diversion of trade to Rotterdam as a result of refusal to pay.

The Belgian merchant marine is not large, but it is extremely active and prosperous. In 1880 the tonnage was 75,666 tons; in 1890, 75,946 tons; in 1895, 87,213 tons; in 1897, 85,427 tons; in 1900, 120,176 tons. The sailing tonnage has continually decreased until in 1900 there was only one sailing vessel belonging to Belgium. The share of Belgian shipping in national trade fell from nineteen per cent in 1895 to sixteen per cent in 1900. The King and some ship-owners have attempted to arouse enthusiasm for bounties to encourage trade especially with the Congo Free State,¹ but the people are contented to allow competition to take its course. To those who associate the sea-carrying trade

¹ See Greve, *W. Seeschiffahrts-Subventionen*, p. 21.

with enormous wealth and large profits, a comparison of Belgium with Norway may be instructive. With about three times the population Belgium has more than ten times the foreign trade of Norway, though her fleet is not more than one-tenth as large as the Norwegian fleet. Norway is one of the poorest countries of Europe,—it is this fact which makes her people willing to work for the low wages which are earned in sea-transportation to-day. Belgium, on the contrary, has the largest per capita wealth of any nation; the Belgian laborer is much better paid than the Norwegian sailors, and so the Belgians work at home and allow the Norwegians to take the risks and small returns attending shipping undertakings.

PORTUGAL

The government of Portugal pays postal subventions to three steamship companies. To the Azores line, about \$45,000; to the Algarve line, about \$12,400; to the Guinea line, about \$33,330 yearly. The trade between the mother country and the colonies is restricted to the Portuguese flag. A bill was laid before the *Cortes* in 1899, providing construction and navigation premiums, but it has not been enacted into law. The shipping of Portugal is of very little importance. In 1902, the steam tonnage was only 29,443 tons and the sail tonnage, 56,588 tons, showing a decrease since 1899 of 30,000 tons in steamers and 13,000 tons in sailing vessels.

BULGARIA

The Bulgarian government owns one-fourth of the shares of the Bulgarian Steamship Company of Varna, and pays nine per cent. on the paid up capital of the

company, or about 100,000 francs (\$19,300) a year as subvention for carrying the mails, and transporting soldiers, munitions, etc. Besides this aid to domestic shipping, the government pays subventions to two foreign steamship lines as encouragement to commerce. In 1900 the government agreed to pay a yearly subvention of 120,000 francs (\$23,160) for a period of five years to the German Levant Line. There has been a considerable increase in trade between Germany and Bulgaria since this arrangement was made. In 1902 the Bulgarian government agreed to pay a subsidy of 500,000 francs a year for five years to the French Fraissinet line for regular services between Burgas, Varna, and Marseilles.

BRAZIL

Brazil formerly gave a subvention in conjunction with the United States for a postal service between Philadelphia and Rio Janeiro. Some of the individual states of the Federation give subventions today to foreign steamship companies, as for example Amazonas, which gives 200,000 milreis a year to an Italian line for twelve voyages between Genoa and Manaos. Other South American Republics, as for example Chile, give mail subventions, but it is not worth while to consider them, as they have no appreciable effect on merchant shipping.

UNITED STATES

FIRST PERIOD

If we except the bounties first granted in 1792¹ to certain cod-fishing vessels as drawbacks on the salt duties, the history of government aid to shipping in the United States begins with the act of March 3, 1845, providing for the transmission of the mails between the United States and foreign countries in American ships. This act was for the declared purpose of encouraging Americans to build and run steamships. The postmaster general was empowered to make contracts with steamship companies for either a fixed subsidy or the postage rates as follows: for ports not less than 3000 miles distant, 24 cents per half-ounce, 48 cents per ounce, and 15 cents for every additional half ounce; for the postal service to Mexico and the West Indies, 10 cents per half-ounce, 20 cents per ounce, and 5 cents for every additional half-ounce. The United States inland postage was added to the above sums in every case. These liberal rates did not induce Americans to establish mail steamship lines, so it was thought necessary to offer still more liberal terms. An act of March 3, 1847, authorized the Secretary of the Navy to accept the offer made by E. K. Collins and Company to carry the mails from New York to Liverpool, and that made by Mr. Sloo to provide five steamships for carrying the mails between New York, New Orleans, and Chagres. The latter service was to cost not more than \$290,000. Further provisions were made for carrying the mails across the Isthmus of Panama and up the coast of Cali-

¹ These bounties were continued up to July 30, 1846. See U. S. statutes at large.

fornia and Oregon. The objects of this act, as set forth in the preamble, were to provide efficient mail services, to encourage navigation and commerce, and to build up a powerful fleet for use in case of war. All the subsidized ships were subject to purchase or control by the United States government whenever necessary.¹ On February 2, 1847, the Post Office department concluded a contract for five years under the law of March, 3, 1845, with the Ocean Steam Navigation Company for the conveyance of the mails between New York and Bremen and Havre via Cowes. The contract provided payment on the basis of \$100,000 for six round trips a year to Bremen and \$75,000 for six trips a year to Havre, which gives mileage rates of \$2.23 and \$2.00 respectively. When the service should be doubled the pay was to be doubled.² It was stipulated that the steamers employed should be at least 1400 tons and faster than the Cunard steamers. The service to Bremen began June 1, 1847, but up to 1851 the vessels had no regular schedule of sailing and payments were made for each voyage separately. Sailings were irregular and so slow that few mails were sent by them. In 1851 the full service, viz., twelve trips to Bremen and twelve trips to Havre was begun. The next year Congress extended the contract until 1857.³

The Post-Office Department also contracted for a bi-monthly mail service between Charleston and Havana for a payment of \$45,000 per annum. In approving this contract, Congress added \$5000 for making Savannah a port of call. The service was begun October 18, 1848, and continued for ten years.⁴

¹ U. S. statutes, 1847.

² Ex. Doc. 30th cong., 1st sess., No. 50.

³ Ex. Doc. 32d cong., 1st sess., No. 127.

⁴ Ex. Doc. 30th cong., 2d sess., No. 15.

The Secretary of the Navy made three mail contracts during the year 1848, all of which were to run for ten years. The first was concluded with Mr. A. G. Sloo¹ for a bi-monthly service between New York and Chagres via Havana and New Orleans, to be carried on by five new steamers of 1,500 tons each. The subsidy was fixed at \$290,000 a year for traversing a distance of about 158,000 miles, or at the rate of \$1.83 $\frac{1}{3}$ a mile. The second contract was made with Mr. Arnold Harris, who immediately resigned it to the Pacific Mail Steamship Company represented by Mr. W. H. Aspinwall. It provided for a monthly service to be conducted by three new steamers between Astoria and Panama, calling at San Francisco, Monterey, San Diego and Umqua City. The subsidy was at first \$199,000. Later the route was modified, the sailings made bi-monthly, and the subsidy increased to \$384,250 for sailing about 201,600 miles, or at the rate of \$1.90 per mile. The third contract was made with Mr. Edward K. Collins for a bi-monthly service during eight months of the year and a monthly service during the four winter months, between New York and Liverpool. The contractor agreed to build five new first class steamers of at least 2,000 tons burden. In consideration of his services he was to receive \$385,000 a year for traversing about 124,000,—a mileage rate of \$3.11 a mile.² In every case the mileage rate has been calculated upon the total distance sailed out and back. In computing the cost of the trans-Atlantic mail service the outward voyage alone should be considered so the rates must be doubled in order to compare the cost ~~per~~

¹ Mr. Sloo transferred the contract to Mr. George Law of the N. Y., New Orleans and Aspinwall line.

² Ex. doc. 30th cong., 1st sess., nos. 50, 51; 32d cong., 1st sess., nos. 1 and 50.

mile of this service with the cost per mile of the services to Panama, or with the English colonial services.

The service between New York and Chagres was begun in 1848 and was continued with regularity until the expiration of the contract. The service between Astoria and Panama was not at first satisfactory, partly because of the failure of the company to provide sufficient and suitable vessels, and partly because of the impossibility of securing crews on the California coast during the gold excitement.¹

Through delays in building the necessary ships, the Collins contract did not go into effect until June 1, 1850. The original terms of this contract granted a subsidy of \$19,250 per voyage for twenty voyages a year. At this time the Cunard line was receiving £145,000 per annum for a weekly service, forty-four trips per year, over the same route, or about \$15,000 per voyage. The ships of the Collins line were in every way superior to the Cunard vessels and it was the boast of the Americans that they would beat the English in steam navigation as they had already beaten them in fast sailing. The English line had the advantage of twelve years' experience, a larger subsidy for a more frequent service, and all the prestige that accrues to a long established line. Besides this, England's need of ocean mail service, and her ability to pay subsidies to maintain English ships were greater than the need and ability of the United States. The American line had the advantage in the size, strength, speed and equipment of its vessels. Mr. W. S. Lindsay² maintains that the Cunard subsidy was not too large considering the importance of the services rendered. He characterizes the English policy as wise and liberal and

¹ *Ibid.*, 30th cong. under *Mails to Panama*.

² *History of merchant shipping*. See Cunard and Collins lines.

condemns the American policy as extravagant and a tax upon the people. He says that the owners of American sailing ships complained justly of this system which gave protection to steamships at the expense of sailing ships. Unfair as these statements appear on first comparison, yet there is much truth in them. Mail communication was much more important to Great Britain than to the United States. Coal, iron and labor were far cheaper in England, and the establishment of permanent, economical steam navigation, from the first less problematical for England, was now no longer an experiment as it was in America.

The establishment of the Collins line was productive of some substantial benefits, and, as the subsidy was responsible for the starting of the line, it may be credited with bringing about these benefits. Before 1850, Mr. Cunard had a virtual monopoly of the faster freight business, and charged all the traffic would bear. In a few months after the Collins line started, freights fell from £7 10s. per ton to £4 per ton.¹ Commerce and passenger traffic were increasing rapidly. But the severe conditions of the mail contract made it impossible for the Collins people to secure any very large part of the growing freight business without great outlay for slower cargo boats, for the quick sailing with short stay in port made it impossible for the mail steamers to secure or carry much cargo.

Mr. Cunard had labored persistently to prevent the formation of a rival American line. In 1848 he used the "American scare" to induce Parliament to raise his subsidy to £145,000, as payment for extra service which he put on to New York from Liverpool direct, in the hope of smothering American competition before it be-

¹ See Hist. of mer. shipping, under Collins line.

gan. He complained because his subsidy was not increased to £170,000 instead of £145,000 when he thus doubled the service.¹ In 1851, a year and a half after the Collins line started, Mr. Cunard obtained £173,340 (\$843,000) a year for forty-four trips or about \$19,000 per voyage.

In 1852 the subsidy to the Collins line was increased to \$33,000 per voyage for twenty-six trips a year,² a rate of more than \$5.00 a mile. The competition between the American and the English line, severe from the first, now became a life and death struggle in which the competitors were backed by their respective governments. It was pretty evident that both could not survive. The superior speed and equipment of the American boats at first gave them a greater proportion of the passenger business; but the English boats did most of the freighting, which is the profitable side of most transportation businesses. Mr. Collins represented his company as unable to compete with the Cunard people unless the subsidy was increased. In a statement before a committee of Congress, he declared that to save a day or a day and a half in the run between New York and Liverpool cost the company nearly a million of dollars annually. To hold the speed record was then as now a costly form of enjoyment.

The economic conditions rendered it impossible that the Americans should compete with the English successfully at this time in steam navigation; but the actual failure of the Collins line was immediately due to disasters wholly beyond human foresight or control. The loss of the "Arctic" on September 21, 1854, had a depressing influence upon the affairs of the company. A

¹ Parl. papers, 1849, vol. 12.

² Ex. Doc. 32d Cong., 1st Sess., No. 1, p. 670.

little more than a year after, the "Pacific" sailed away from Liverpool, passed out of sight, and was never seen or heard of after. This was really the death blow to the company. They kept up the struggle for a time, but it was impossible for them to retrieve these disastrous losses. The lost "Pacific" was succeeded by the "Adriatic", the finest and fastest steamship then afloat, but shippers and passengers alike feared to trust their property and their lives to a company that had met with so many misfortunes. In 1856 Congress reduced the subsidy to the original sum of \$385,000 a year for twenty trips. Two years after, all contracts for carrying the foreign mails were abrogated, the Collins line perished, and with it perished all the grand hopes of driving the British from the seas.

Approximately the cost of this first subsidy experiment was as follows: Bremen line (1847-57) \$2 million; Havre line (1852-57) \$3¼ million; Collins line (1850-58), \$4½ million; New York to Aspinwall (1848-58), \$2.9 million; Astoria and San Francisco to Panama (1848-58), \$3¾ million; Charleston to Havana (1848-58), \$½ million; total about \$14½ million.

The results of this expenditure were hardly gratifying to American pride. Steamship navigation had been encouraged, but it had proven a very expensive thing thus far. It might be thought that this melancholy experience would have settled the question of subsidies, but such was not the case. The advocates of subsidies asserted that great results had been accomplished, and that, if the subsidies had been continued as in England, we would have held our own or even beaten the English.

The truth is that England had the advantage at that time in the production of iron and coal,—the two most

important factors in the modern shipping problem. It is true, iron was not then used as the principal material of construction, but it was of great importance nevertheless, in the building of the machinery. At the same time England's great manufacturing industries were reaching out for wider foreign markets, and the surplus of national income was seeking profitable investments. The United States could not compete with England in building and running iron steamships. It was absolutely necessary for England to export her manufactures and import raw material, food stuffs, etc. It was even more necessary that she should keep in close touch with colonies by means of her own ships. Had we been able to build or buy and run steamships as cheaply as the English, we could not have beaten them in a subsidy war. The greater wealth of Great Britain at that time could not have left the result of such a contest in doubt.

SECOND PERIOD

From 1858 to 1866 the United States government gave no subsidies for ocean mail service. American vessels carrying mails received the sea postage plus the United States inland postage for carrying United States mails, foreign vessels received sea postage only. In 1864 a bill was introduced, authorizing the payment by the United States of \$150,000 per annum for a monthly steamship service between Rio Janeiro and a United States port north of the Potomac River, on condition that Brazil pay \$100,000 for the service. On reporting this measure favorably to the House, Mr. Alley of Massachusetts, said : ¹ " Establish this steam communication with South America, and you will not a great while longer see England exporting \$28,000,000 worth of mer-

¹ Cong. Globe, 1863-4, p. 1655.

chandise and taking in return less than half the amount, and the United States exporting only \$6,000,000, while the import of Brazilian products is over \$20,000,000."

The bill became a law, and on August 29, 1865, a contract was made with the United States and Brazil Mail Steamship Company for a monthly service between New York and Rio Janeiro. The line continued for ten years, costing the two governments \$2,500,000, of which the United States paid \$1,500,000. When the subsidy

TABLE XXXIV
IMPORTS FROM BRAZIL, VALUE
(Values in 1,000,000 dollars)

	Free	Dutiable	Total	Carried in American Ships
1860-----	17.1	4 0	21.2	18.2
1863-----	.2	10.7	10.9	----
1865-----	.2	9.5	9.8	1.3
1866-----	.2	16.5	16.8	3.0
1867-----	.3	18.7	19.1	4.6
1869-----	.6	24.2	24.9	7.2
1871-----	2.1	28.4	30.5	11.3
1873-----	35.8	2.7	38.5	15.1
1875-----	39.3	2.7	42.0	17.4
1876-----	43.9	1.4	45.4	14.3
1878-----	39.6	3.2	42.9	13.3
1880-----	45.7	6.1	51.9	16.4

EXPORTS TO BRAZIL, VALUE

	Carried in American ships	Carried in foreign ships	Total
1860-----	5.4	.5	5.9
1863-----	3.1	1.7	4.8
1865-----	1.2	5.3	6.5
1866-----	1.7	3.9	5.6
1867-----	2.5	2.4	5.0
1869-----	2.8	3.1	5.9
1871-----	3.3	2.5	5.9
1873-----	4.3	2.7	7.0
1875-----	4.7	2.9	7.6
1876-----	4.4	2.8	7.2
1878-----	5.4	3.1	8.6
1880-----	5.6	2.8	8.4

was withdrawn the company suspended operations. So ended the high expectations proclaimed by Mr. Alley.

Table No. XXXIV gives the conditions of trade with Brazil before and after the subsidy. It is obvious that the statistics prove nothing for the subsidy. Imports and exports fell off during the Civil War. The restoration of peace and the institution of the subsidy came simultaneously. Those who stand for subsidies ascribe the increase in trade after 1865 to the establishment of the postal steamship line. The growth in fact seems to be entirely due to the restoration of disturbed lines of trade. ✓ Commerce was carried on almost wholly in sail vessels; the part transported by the mail steamers was not large. The fact that trade does not depend on subsidized steamship lines is shown by the continued increase in our commerce with Brazil after the company had suspended its service. It has been stated that the increase of trade is due to the removal of the tariff duties on crude rubber in 1871, and on coffee in 1872. The statistics do not warrant the statement, for the increase in the importation of coffee was relatively as rapid before as after the removal of the duty of \$.05 a pound. ✓¹

It is a curious fact that the total quantity of coffee imported from all sources for the fiscal year 1871 (before the removal of the duty) was greater than the imports for any succeeding year until 1876. If the removal of the tariff duty which brought in an annual revenue of from \$12,000,000 to \$16,000,000 had no measurable effect on trade development, it is preposterous to suppose that a postal subsidy amounting to \$250,000 a year could have any great influence in that direction. In fact, there are so many influences at work to determine the direction and value of commerce

¹ Commerce and navigation of the U. S. for the years in question.

that the effects of a subsidy are usually negligible, or, at least, unmeasurable.

Simultaneously with the Brazilian mail subsidy measure was introduced a bill authorizing a subsidy of \$500,000 a year for a monthly service to Japan and China via Hawaii. In this case, too, great expectations of increased trade were entertained. It was confidently asserted by the advocates of the measure that the United States would soon do practically all the carrying trade for China, Japan, and India. Mr. Cole, the originator of the bill, said²: "It is as certain as demonstration can make any fact, that the expenditure will be returned many-fold in duties on increased importations, and that, too, from the very start. And then the trade will increase from year to year, almost in arithmetical progression, until, not only our expanding republic, but the whole world will be supplied through American merchants with the products of the land of Confucius."

The bill became law February 16, 1865, and the following year the government entered into a contract with the Pacific Mail Steamship Company for the service to the Orient. In the session of 1866-7, Congress released the company from the obligation of stopping at Hawaii on the way to China and Japan, and during the same session voted a subsidy of \$75,000 per annum for a distinct service to Hawaii, which was taken over by the California, Oregon, and Mexican Line. Both of these contracts were advertised openly, but in each case only one bidder came forward offering to do the service for the maximum subsidy authorized by law.

In 1872 the Pacific Mail Company offered to run another monthly service to China and Japan for an ad-

² See Cong. record, 1863-4:

ditional \$500,000 a year. With considerable difficulty a bill authorizing such a contract was passed by Congress, June 1, 1872. In 1874 it was discovered that bribery had been employed to secure the passage of the measure.¹ It was proven that the company had spent about \$1,000,000 to push the bill through Congress. The new contract was abrogated by the government because of the improper methods used in gaining the necessary legislation, and the subsequent failure of the company to fulfill the conditions of the said contract.

In 1873 the service to the Sandwich Islands was given up by the California, Oregon, and Mexican Company. It had lasted six years and had cost \$425,000. The first contract with the Pacific Mail Company for the Japan and China service expired in 1877. It actually received from the government during the ten years of its contract \$4,583,333.33. The statistics of trade with China and Japan during the period of subsidies and for some time before and after are given in Tables XXXV A and XXXV B.

No connection between the giving of subsidies and the course of trade can be established by these figures. The increase in the imports from China and Japan was due almost wholly to the larger shipments of tea and raw silk. The actual decline in the exports to China is impossible to explain. The major part of the commerce with China and Japan was carried on by sailing ships and it would have made little difference with the trade if the Pacific Mail Steamship Company had ceased to run its steamers. The practically stationary condition of the export trade to South America and the Far East during the subsidy experiments was 'due to the

¹ House docs., 42d cong., 2d sess., no. 598; miscel. doc., nos. 74 and 255; 43d cong., 1st sess., H. D. no. 268.

TABLE XXXV A
IMPORTS FROM CHINA, VALUE
(Amounts in 1000 dollars)

	Free	Dutiable	Carried in American ships	Total
1860-----	9,867	3,698	13,566	13,135
1863 ¹ -----	713	10,321	10,945	-----
1865-----	202	4,928	5,130	550
1866-----	250	9,882	10,132	2,326
1867-----	457	11,654	12,112	3,027
1869-----	700	12,508	13,209	5,361
1871-----	2,776	17,289	20,066	9,535
1873 ² -----	21,338	5,014	26,353	10,398
1875-----	9,705	3,774	13,480	2,839
1876-----	8,311	4,049	12,360	2,576
1878-----	12,473	3,421	15,895	4,559
1880-----	17,210	4,559	21,769	6,813

EXPORTS TO CHINA, VALUE

	Carried in American ships	Carried in foreign ships	Total
1860-----	6,774	396	7,170
1863 ¹ -----	3,555	1,637	5,192
1865-----	1,096	5,406	6,502
1866-----	4,703	3,928	8,632
1867-----	6,127	2,660	8,788
1869-----	8,881	1,377	10,258
1871-----	3,465	454	3,920
1873 ² -----	1,760	152	1,913
1875-----	1,298	167	1,465
1876-----	1,100	289	1,390
1878-----	6,390	5,069	11,460
1880-----	885	215	1,101

¹ China and Japan together.

² Previous figures include Hongkong.

fact that we had but little to export except raw materials and food stuffs, neither of which could be used to any extent in these countries. If it is necessary to demonstrate the futility of subsidies to create commerce where there is no economic reason for it, these experiments supply abundant proof. The need for quicker and more regular postal service to Brazil and the

TABLE XXXV B
IMPORTS FROM JAPAN, VALUE
(In 1000 dollars)

	Free	Dutiable	Total	Carried in American ships
1860-----	9	45	55	55
1863-----	---	---	---	---
1865-----	2	282	285	153
1866-----	88	1726	1,815	411
1867-----	101	2517	2,618	454
1869-----	58	3187	3,245	1224
1871-----	1,076	4311	5,387	2292
1873-----	8,899	353	9,253	5775
1875-----	7,633	138	7,772	2430
1876-----	14,664	843	15,508	7069
1878-----	2,289	4421	6,711	688
1880-----	13,975	534	14,510	5375

EXPORTS TO JAPAN, VALUE

	Carried in American ships	Carried in foreign ships	Total
1860-----	89	none	89
1863-----	---	---	---
1865-----	42	none	42
1866-----	427	44	472
1867-----	624	65	690
1869-----	2791	45	2836
1871-----	975	11	987
1873-----	7601	62	7664
1875-----	1336	310	1647
1876-----	801	297	1098
1878-----	1803	966	2770
1880-----	1685	839	2525

Orient was not at that time pressing, so the subventions were not actually payments for carrying necessary mails. The three trans-Atlantic lines before alluded to had some claims to governmental aid for postal reasons. The lines to Aspinwall and from Panama to San Francisco were necessary, and though the payments were excessive the importance of the service to the distant western shores of our expanding empire was great.

There was not this necessity in the case of the lines to Brazil, Hawaii, and Asia.

From 1865 to 1874 Congress was flooded with subsidy bills. On July 27, 1868, the President approved an Act giving to the Commercial Navigation Company of New York the monopoly for fifteen years of carrying all European mails weekly or semi-weekly to Queens-town, Southampton and Bremen. The vessels, seven in number, were to be built of iron in the United States. The company was to receive the inland and sea postage until they should amount to \$400,000, after which it was to receive sea postage only up to a limit of \$600,000. But the post-master general refused to make the contract required, on the ground that it was against all reason to reduce the mails from four a week to two. He offered the company a contract to carry the mails four times a week at the prescribed rates, but it was not taken. During 1872 attempts were made to establish subsidized lines to Australia and from New Orleans to Cuba, but they failed.

✓ After the disgraceful affair of the Pacific Mail came to light, the subsidy agitators kept still for a time. During that time there was no complaint about the ocean mail service or the lack of commercial communication. Frequently British statesmen and public officials declared that the American policy of paying for carrying the mails according to weight was much more economical and satisfactory than the method of fixed subsidy. In 1879 a new scheme for subsidizing a line to Brazil was brought up by Mr. John Roach, but it was defeated. Mr. J. G. Cannon in a speech before the House of Representatives¹ on the bill said: "Beginning with the year 1847, down to the present time, we

¹ See the congressional record for 1879.

have paid out of the treasury over \$21,000,000 for the purpose of establishing steamship lines. Seven million dollars would buy all the steamship lines engaged in commerce that sail under the American flag on every ocean in the world, and more than that, the subsidizing of these steamship lines, from the Collins line in 1850 up to the present time, has bankrupted every prominent man that has favored it."

This is somewhat of an exaggeration, perhaps, but the total failure of the subsidized lines in America, while in England the mail lines, with but two or three exceptions, prospered, should have made it evident that mail subsidies are a very secondary matter in the competition for the ocean carrying trade. As before indicated the economic conditions of the two countries were quite different. England had large manufacturing interests, seeking an outlet for surplus products, and offering a market for raw materials. Our manufacturers could not supply the home market and our raw products, which were all we had to export, could be sold only in Europe. England had large foreign possessions with which it was absolutely necessary to keep up communication; we had no distant possessions unless we include California as such, before the building of the Pacific railroad. In fact, Great Britain and her dependencies was an empire, while the United States at that time was no more than a colony. Finally, England had incomparably greater facilities for producing and running iron steamships. All things considered, there is some justice in the statement that, in the case of England, the mail subvention system was a wise and liberal policy, while in the case of the United States, it was a tax on the people to support a mistaken policy.

The beginning in the decline of the American mer-

chant marine was not, as is quite generally supposed, the war of the rebellion, although that event caused the loss of an immense amount of tonnage. This loss would have been regained after the restoration of peace, had conditions remained as during the first half of the nineteenth century. The change from wooden to iron construction, and from wind to steam propulsion, together with the great impulse given to the development of inland industries and communications by the war and the financial policy growing out of the war, were the causes of the continued decline of the American marine. The subsidy experiments after the war were powerless to stay the downward tendency.

Up to 1891 Congress took no further action. In that year a bill introduced by Senator Frye, of Maine, was passed authorizing the post-master general to make contracts for not less than five years or more than ten years, with American citizens for carrying the mails in American steamships between the ports of the United States and foreign ports. Proposals must be invited by public advertisement three months before the letting of the contract. Vessels must be American built, owned and officered. The crew of a mail steamer must be at least one-fourth American for the first two years, one-third for the next three years, and one-half thereafter. Four classes of steamships were denominated. (1) Iron or steel screw steamships of not less than 8000 tons gross, and a speed of 20 knots an hour. Only first class steamers are eligible to the service to Great Britain. (2) Iron or steel steamships of not less than 5000 tons gross and a speed of 16 knots. (3) Iron or steel steamships of 2500 tons gross and 14 knots. (4) Iron, steel, or wooden steamships of 1500 tons gross and 12 knots. All except fourth class steamers are required

to be constructed under the superintendence of the Navy Department, so as to be convertible into naval cruisers. Maximum compensation for carrying the mails is fixed at \$4, \$2, \$1 and $\$ \frac{2}{3}$ per mile for each of the four classes respectively. Deductions pro rata and penalties are imposed for failures or delays in service. The objects of this law, as stated by the promoters, are: First, to secure regular and quicker service to countries now reached. Second, to make new and direct commercial exchanges with countries not now reached. Third, to develop new and enlarge old markets in the interests of producers and consumers under the reciprocity treaties completed and under consideration. Fourth, to assist the promotion of a powerful naval reserve. Fifth, to establish a training school for American seamen.¹

Under the law six contracts have thus far been made by the Post Office department for the conveyance of the foreign mails, the last one, which is for the service to Australia, having gone into effect November 1, 1900. The contract stipulations with regard to voyages and compensation, together with the actual record of the services for the fiscal year ending June 30, 1901, are given in Table XXXVI.

The inherent evils of mail payments by fixed or mileage subsidies are strongly brought out in the table. The New York and Cuba mail received \$201,078 as subsidies in 1901 for carrying 1995 pounds of first class mail and 30,864 pounds of other articles,—a service worth \$2,266.68 at the regular sea postage rates. As the post is a certain index of the state of trade, we must conclude that the Act is not a success in the promotion

¹ See 51st cong., 2d sess., H. R. no. 3273, (1890): also post-master general's report, 1892.

TABLE XXXVI

Contract services	Contracting lines	Contract stipulations	
		Trips per year	Statute miles subsidies (in thous- ands) Mileage (in 1000 dollars)
N. Y. to La Guaiva	Red D Line	36	81 81
N. Y. to Southampton	Intl. Navig. Co.	52	189 757
N. Y. to Tuxpam }	N. Y. C. Cuba Mail	{ 52	130 130
N. Y. to Havana }		{ 52	73 73
Boston and Phila. to Port Antonio, J. I.	Amer. Mail	78	185 123
San Francisco to Sydney, Australia	Oceanic	17	141 283
			801 1448

Actual service for fiscal year 1900-or¹

Contract services	Contracting lines	Sea and inland Excess of postage payments		
		Mileage on mails paid (in 1000 dollars)	carried over (in 1000 dollars)	age (in 1000 dollars)
N. Y. to La Guaiva	Red D Line	56	25	30
N. Y. to Southampton	Intl. Navig. Co.	528	366	162
N. Y. to Tuxpam }	N. Y. C. Cuba Mail	{ 201	5	195
N. Y. to Havana }				
Boston and Phila. to Port Antonio, J. I.	Amer. Mail	117	7	110
San Francisco to Sydney, Australia	Oceanic	133	32	100
		1036	437	599

¹ From report of the superintendent of foreign mails.NOTE—Rates are paid per *statute* mile instead of per *nautical* mile, as is usual on ocean mail routes.

of commerce on the last three lines at least. The provisions of the law had to be set aside in order to establish the European service with first class steamers. By a special act of Congress in 1891, the "New York" and "Paris" (now "Philadelphia"), first class steamers of English construction, were admitted to American registry on condition that two equally large and good vessels be built in America and put in service. The confident prediction, made by the supporters of the measure, that it would enable American steamshipping

within ten years to compete with English ships, has failed of realization.

The failure of the law of 1891 to "revive" American shipping gave the excuse for more subsidy legislation. With great arithmetical accuracy the commissioner of navigation in 1897 figured out that the mail subventions were inadequate to build up a great merchant marine. The only reason the mail subsidies had not created a great marine was that they were not large enough. Accordingly Senator Hanna introduced a bill, December 19, 1898, "To promote the commerce and increase the foreign trade of the United States, and to provide auxiliary cruisers, transports, and seamen for government use when necessary." It is to be noticed that the necessity for carrying mails was not used to cloak the real nature of the proposed payments. The preamble declared that "the profitable employment of the surplus productive power of the farms, factories, mines, forests, and fisheries of the United States imperatively demands the expansion of its foreign commerce." The bill provided a navigation bounty of 1.5 cents per gross ton for each hundred nautical miles sailed up to 1500 miles and 1 cent per gross ton for every additional hundred miles. In addition steamships were given extra speed and tonnage bounties per gross ton for each hundred miles sailed. The additional bounties ranged from one cent per gross ton for steamers of 1500 tons and 14 knots, to 3.2 cents for steamers over 10,000 tons and 23 knots. It was predicted, as usual, that this measure was the final solution of the shipping problem. It would give such an impetus to shipping in this country that by 1908 we would own eighty per cent of the ships engaged in our foreign trade. According to a most careful and

thorough study by Capt. W. W. Bates,¹ the annual payments under this bill would have been \$3,222,268 for 1900, and in 1908 if we should own eighty per cent. of the shipping in our foreign trade, they would have increased to \$48,374,015. This bill met with such strong opposition that it was dropped, and a substitute measure framed. Substitute measures were brought up the next year in both the House and the Senate of the 56th Congress. Again the opposition prevented the measure from coming to a vote.

At the opening of the first session of the 57th Congress, Senator Frye introduced a newly drafted measure. Title I, provides compensation for ocean mail steamships. Seven classes of steamers are denominated with compensation per gross ton per hundred miles sailed, as follows: Steamers of iron or steel over 10,000 gross tons and 20 knots, 2.7 cents; 19 to 20 knots, 2.5 cents; steamers over 5,000 gross tons and 18 knots, 2.3 cents; 17 to 18 knots, 2.1 cents; 16 to 17 knots, 1.9 cents; 15 to 16 knots, 1.7 cents; steamers over 2000 gross tons and 14 knots, 1.5 cents. Vessels receiving the mail subsidy are ineligible to any other subsidy. Title II, General Subsidy, provides a subsidy to all vessels, sail or steam, of American registry engaged in foreign trade. The rates per gross ton per 100 miles sailed are one cent, or in case the vessel is over 1000 tons, $1\frac{1}{4}$ cents. Title III, Deep-Sea fisheries, provides a bounty of \$2 per gross ton to vessels engaged in the deep-sea fisheries, and one dollar a month to every citizen of the United States engaged in such fisheries.

This bill was reported favorably by Mr. Frye from the committee on commerce, January 20, 1902, and was passed by the Senate after brief consideration on March

¹ See Congressional record, Feb. 17, 1899.

14, 1902. It was not brought up in the House, because the opposition was strong enough to make its passage very doubtful.

It is very suggestive to study the evolution of this bill. It started out as a pure subsidy measure with no relation to the ocean mail service, and no limits whatever to the amount of expenditure. By continued opposition the advocates of subsidy were compelled to introduce first a maximum of \$9,000,000 and to reduce the rates of subsidy and finally to fall back upon the old familiar plea of the necessity for ocean mail service. Meanwhile the continued and rapid advancement in ship-building and the increase in American capital invested in shipping under foreign flags makes a subsidy measure seem altogether superfluous. A reform of our obsolete shipping laws seems a much more rational project.

PART II

THEORY OF SUBSIDIES

THEORETICAL ARGUMENTS

Bounties vs. Protective Duties.—The opinion is generally held by our legislators and other social experimenters and even by economists that the theory of bounties or subsidies is identical with the theory of protection in general ;¹ that if a theoretical justification for a protective tariff can be established, it will apply equally well to the giving of direct bounties and *vice versa*. It is held that, theoretically, any governmental favor to industry, whether in the form of direct payments or protective duties enabling the favored industry to compete with foreign industries in the home market, may be considered as a bounty, because, it is argued, that the protective principle applies to both. This view is correct in one respect only,—the ends sought by the imposition of a protective duty and by the granting of a bounty are identical, viz., the encouragement of some home industry. The questions of administration are totally different as are also some of the practical effects of the two distinct forms of protection. Under a protective tariff the home market is at least partially reserved for the home producer, prices are raised and output is in consequence restricted. Under a bounty system there is no restriction of the home market, the bounty acts as a lowering of the costs

¹ See reports of the ship subsidy measures in Congress. Also the debates in the Senate in March, 1902. Also Palgrave's Dictionary of political economy, article on "Bounties."



of production, demand is consequently increased, and the output in proportion. It is at least probable that the effects of these two diametrically opposing tendencies will be quite unlike. It is therefore unwarrantable to discuss the question of bounties on the broad general lines of protection.

It seems rational from the consumers' view-point to assume that a bounty has more to justify it than has a protective tariff. The raising of prices and the cutting off consequently of a number of consumers from purchasing, as well as the curtailing of consumption by the economically stronger purchasers must necessarily subtract from the total quantity of social well-being. To the producer it makes no difference, of course, whether he receive money direct from the state or from his customers, provided the bounty is in proportion to his production, *i. e.*, specific. If the bounty is fixed there will be more inducement to combine to limit the supply. But though it makes no difference to the producer who pays him his profits, it does make a very great difference to him whether he sells much or little product. A protective duty so long as it is really protective curtails demand by increasing price; a bounty, on the contrary, if it act under conditions of free competition, will always extend demand by lowering price. The conditions of the home industry may be such that the same quantity of commodities would be produced in either case, but the presumption is in favor of larger output and accompanying economies of production in the case of a bounty-fed industry as compared with a tariff protected industry. Apart from questions of administration and public accounting, it seems reasonable that a bounty has more to commend it than any other form of pro-

tection.¹ At least it will be admitted that protective duties and bounties cannot be discussed on the same principles, although the benefits claimed for both are identical.

In a discussion of bounties, as of protection in general, care should be taken to distinguish between the arguments for temporary protection and those for a permanent protective system. The only scientific argument of an economic character for temporary protection is the so-called infant industry argument. The validity of this contention depends upon the possibility of hastening the industrial development of a nation in those lines where it has a relative advantage, so that the protected industries will sooner reach a position of equality or superiority compared with the same industries in other countries. It is claimed that there will be a gain in time, that the resources of a new country will be sooner exploited. Theoretically it is possible to conceive that in this way a country may make a net gain in its wealth. It is thought by some that protection in the United States has up to the present resulted beneficially by establishing industries earlier than would have been the case without protection. The statistics submitted to prove this assertion are not convincing. It can not be shown that the accelerated development in certain industries which undoubtedly took place as a result of protection, resulted in a net gain to the country. The unscientific and irrational character of our tariff legislation makes it highly improbable that the gains have equalled the costs.

¹ When the lower prices go to benefit foreign consumers in large part, bounties may be the most wasteful form of protection. The sugar bounties given by continental countries is a good example. This is discussed more fully below.

In any case the economic advantage of giving protection to a new industry on the above grounds depends upon the possibility of the protected industry becoming at least as productive as the like industry in other lands,—a possibility to be determined only by practical experience. Then political and ethical evils come up and render any possible economic benefits nugatory. This has occurred again and again even in those industries where conditions have seemed most favorable for the demonstration of the protective principle. Not to go outside the scope of this treatise, we have seen these evils exemplified in the case of the Cunard Line, the Royal West India Mail and other great British mail lines, as well as those of France, Italy, Austria, Japan and the United States. The judgment of legislators is not infallible, be their intentions never so good. They are prone to magnify the benefits of building up new industries and to exaggerate the difficulties in the way of private enterprise in establishing or extending them. They are much more likely to err in estimating the most productive employment of capital than are the capitalists and business undertakers if left free to direct their own investments. The public welfare is often times regarded as identical with the prosperity of individual industries or establishments. The protected industries come to have an over-powerful influence on legislation, even if the legislators be not actually corrupted as was the case in at least one ocean mail contract in this country. Although the men actively engaged in business are best able to estimate the conditions of their own line, they have a strong inclination to overestimate the importance of their personal welfare to the economic development of the country.

Added to the impossibility of determining what industries are worthy of protection during the first stages of development is the certainty that, if one industry is protected, many that do not need or do not deserve protection will demand and get it. The tariff laws of every protective country are full of such instances. In this way industries are supported at public expense simply because they can not otherwise exist. Adam Smith mentions this danger in speaking of the tonnage bounty of the white herring fishery in which it was "too common for vessels to fit out for the sole purpose of catching, not the fish, but the bounty."¹

Besides the above objections there is the danger that protection begun as a temporary policy will be continued long after it has proven itself futile or worse than unnecessary. Our own tariff laws afford numerous examples of both these kinds of protective duties. The bounties to shipping given by France, Italy, and Austria, as we have seen, are powerless to accomplish the ends for which they were originally intended. Yet they are continued year after year because the State "can't let go." The time required by a protected industry to gain a vested right in the funds of the treasury is very short and when once established such a claim is hard to shake.

It may be necessary for the state to interfere to prevent destructive competition from foreign establishments but the correct method is not necessarily either a protective tariff or a bounty. In fact it seems that protective duties are the worst possible means to choose in such a case, for it cuts off all foreign competition and makes combination among domestic producers both possible and probable as Mr. Havemeyer so emphatically stated in

¹ *Wealth of nations*, Book IV, Ch. V.

his testimony before the Industrial Commission in 1899.¹ Experience has shown that if a new country possesses superior advantages, capital from outside is ever likely to be attracted there in order to take advantage of the opportunities offered, rather than to attempt the destruction of newly founded industries by destructive competition from a distance. These considerations make it advisable to avoid granting bounties, even were it possible to show that, if properly administered, a net gain would result.

The critical objections of the free trader, though having an economic bearing, are primarily political and ethical in character. They come up like the lean kine in Pharaoh's dream and devour the fat, sleek, prosperity-promising kine of the protectionist. Nevertheless, there remains the theoretical possibility that state aid to young industries *may*, under certain conditions and with right direction, accelerate the increase in national wealth. Given these economic conditions, which are said to exist very often, and the only assumption necessary is a government by men of knowledge, honesty, and power.

But if the political and ethical evils of protection were not sufficient to condemn it, there are good reasons for thinking that the shipbuilding industry of the United States does not conform to the conditions of an infant industry. For several years steel plates, beams, and angles have been produced in the United States more cheaply than anywhere else, so that a bounty is scarcely needed to develop our infant steel industry. It does not necessarily follow from this that ships can be built in the United States more cheaply than in England or Germany. According to the commissioner of navigation,

¹ See Reports of the industrial commission, Vol. I. (Trusts and industrial combinations), pp. 133, 137, 214.

the steel and other material going into a steel steamship constitute only about one-fourth of the entire cost.¹ The costs of assembling and finishing are then by far the more important elements in the final cost of a ship.

We must not be too hasty in accepting these statements however, for they come from an ardent devotee of the subsidy policy. The present commissioner was formerly very much opposed to subsidies and furnished statistics in 1894,² proving conclusively that steel ships could be built as cheaply in the United States as in England. Since 1898, he has been engaged in figuring out the exact amount of subsidy necessary to overcome the higher costs of construction and navigation under the American flag. The estimates of these differences in costs have diminished in amount so enormously and so capriciously since the original estimate of 1898, that their accuracy is very doubtful. The first estimate must have been much too high; and what is to insure us that the present estimates are not equally incorrect? The comparisons of wages in different countries made by the commissioner are worthless, and the conclusions drawn from them are silly. No idea is given by these comparative tables regarding the varying conditions of employment, methods of payment, or efficiency of the workmen. We are gravely informed that day wages of workmen in shipbuilding are 50 to 100 per cent higher in America than in England, and from 40 to 60 per cent higher in England than in Germany. If these figures really proved what they are supposed to prove, (*i.e.*, higher labor cost in the United States), they would show the utter impossibility of England building ships. If there was any such enormous difference in real wages for

¹ Report of commissioner of navigation, 1900.

² Report of commissioner of navigation, 1894.

laborers of like efficiency, to attempt the equalizing of the differences by a bounty would be absurd. The fact that steel and iron construction of other kinds is done in America more cheaply as a rule than in other countries shows that the efficiency of the American workman in the steel industry more than makes up the difference in his wages. The higher cost of ship construction in this country is not due to the higher cost of labor per unit of product, except in those cases where employment is unsteady and the labor force must be maintained on less than full time work.

It is thought by many that these higher costs do not really exist. Our ship-builders have constructed several war vessels at prices below the bids made by the strongest English firms, and it is generally recognized that in the building of first class yachts and torpedo-boats American builders lead the world. This, however, does not prove our ability to construct merchant steamers as cheaply as the English. The commissioner of navigation in 1900 estimated the difference in favor of the English builder at 28 per cent.¹ The estimates vary a good deal, but it is admitted except by the most partisan anti-subsidy agitators that the English do build ships for the ocean transport more cheaply than we can. It would be strange if this were not the case. The American capitalist requires a higher rate of interest on his capital than that prevailing in England. This is of course due to the fact that capital is more productive in America. But in shipbuilding, conditions of the productivity of capital are reversed. Where an American shipyard turns out one steel vessel an English yard turns out a dozen, many of them on the same model. The English builder is able to use many identical parts,

¹Report, 1900, p. 32.

while the American builder is fortunate if he can use duplicate parts. It costs no more to superintend the building of a dozen ships than to superintend the building of one. Expensive machinery and highly paid skilled labor are constantly employed in English yards, while until recently the American yards experienced long periods of idleness, during which interest on capital, depreciation of plant, and wages of the necessary labor force consumed profits. The economies in the cost of building and of superintendence, due to organization of the industry on a large scale, give England its great advantage over the United States, and all other rivals. In the building of single war vessels, these economies vanish, for few duplicate parts can be used, the materials are of a special character, and the superintendence more costly. Some American yards have made a specialty of constructing the finest yachts, and therefore lead the world in this particular line of construction. It seems reasonably certain that with organization for large production, the American yards could build ships quite as cheaply as the English yards. A great extension of the demand for steamships is not probable. If we are to do shipbuilding on a grand scale in the United States, it must be at the expense of foreign yards. This does not necessarily mean that the English or German yards must go out of business. It simply means that there will be a readjustment of capital and labor such that the United States will have a larger share, relatively, in the shipbuilding industry of the world. This readjustment is certain to take place without any legislative interference. The countries that can build the cheapest will eventually do the greater part of the world's shipbuilding, even though bounties given by other countries disturb the normal

adjustment. Bounties, be they ever so high, can not prevent an approximate distribution of capital and labor according to natural resources, for a bounty does not act merely as an economy in costs of production. It always has a tendency to render the industry supported weaker and less progressive, so that natural advantages finally determine the localization of industry.

If the readjustment of labor and capital employed in shipbuilding is allowed to go on naturally, there will be no great disturbance of the industry in England or Germany. The American yards will not at once build more ships than English yards, but they will grow more rapidly than the yards in other countries. The economic question before the American people today is, "Will it pay to hasten this process of readjustment?" It is probable that capital will flow more rapidly into the American shipbuilding industry if bounties are granted by the United States Congress. English shipbuilders and capitalists have intimated their intention to take advantage of any alluring bounty which may be granted by this country. As payments to hasten a more productive employment of capital and labor, bounties might perhaps be economically beneficial. But no one can be sure of this, and the danger that the payments begun as a temporary policy may become permanent is great. There is also the danger that a portion at least of the bounty may be absorbed by a shipbuilding monopoly, without in the least benefiting shippers. In this case it can not be pleaded that capitalists are either ignorant of their own interests or too conservative. It is more than likely that the shipbuilders know more about their business than the senators and members of Congress. Steel shipbuilding is by no means so new or so undeveloped in the United States as is assumed. We rank

next to Great Britain both in tonnage owned and tonnage built when domestic shipping is included. It has been demonstrated that steel steamers can be built on the Great Lakes more cheaply than on the Clyde.¹ The industry is thoroughly organized on a large scale in the Lake region. There is no reasonable doubt but that the difficulties in the way of building ships on our Atlantic coast as cheaply as in Scotland will be overcome very soon if they have not been neutralized already.

Navigation.—We have thus far spoken of bounties to American shipbuilding. The bounties actually proposed have been for the navigation of ships. This appears at first to be something altogether different. The interests of owners and shipbuilders are directly opposed. The former want cheap ships; the latter want to sell ships as dearly as possible. In reality, all the ship subsidy measures recently proposed have been in effect bounties to our shipbuilding industry, because our owners would be compelled to buy their ships from American builders. A portion of the bounty has been reckoned as an equalization of the labor costs of running a ship under the American flag with the like costs of running under a foreign flag. Comparisons of the wage bills of an American steamer and of a Norwegian steamer of the same size show a great balance in favor of the latter, according to the reports of the commissioner of navigation. Besides, the food provided by an American vessel must be better and more abundant than that provided by the ships of other countries.² With the exception of steamers under mail contracts, American vessels can make up their crews regardless of nationality today. It is incredible then that an American ship-

¹ See Report of commissioner of navigation, 1903.

² See Reports of the commissioner of navigation.

master must pay so much more than a foreign master in wages.² In the days of the American fast sailing-ships, the higher wages and better food of the American sailors were more than counterbalanced by their greater efficiency and the superiority of the American ships, which could be managed by one-half the number of hands required on the clumsy square-rigged ships. American steamers to-day cost more and are no better than those of other countries, and American citizens are no better stokers and oilers than are Italians, Norwegians, and Portuguese, before they become naturalized. If American ships are really to compete in sea-transportation to-day, we must build better steamers more cheaply than any one else, and, if any unfavorable difference in costs of running American ships exists, it must be overcome either by paying the same scale of wages paid by our rivals, or by increasing the efficiency of labor on our ships. If bounties are to be paid so that American ship-owners can employ American labor to run their ships at greater cost relatively to the gross earnings of the vessels, they must be defended on other than economic grounds.

of the
best
price.

Arguments for permanent bounties.—As indicated above, temporary protection has a powerful tendency to become permanent. Naturally as the protective system is perpetuated, the arguments for temporary protection become inadequate and a new crop of theories spring up to protect the protective duties. Most of these theories are more curious than convincing. They have no discernible relation to either fact or reason and therefore deserve no consideration. Not all of them, however, are of a like degree of worthlessness. Cournot in

² In fact the wages paid are determined, not by the nationality, but by the port at which the men are hired.

1838 gave the first scientific analysis of the effects of taxes and bounties upon the national income.¹ He called a bounty a negative tax and applied the same mathematical formulae to both. He showed clearly by the use of the calculus that a bounty to a monopoly might cause a greater gain to consumers than the loss to the treasury. In this reasoning Cournot takes no account of the increase in demand resulting from a fall in price due to the bounty. Of course had he done so his argument for bounties would have been rendered so much the stronger. This omission is fatal to the argument for bounties and protective duties under conditions of free competition, which he advances later. (*Recherches*, chs. X–XII.) His statement is difficult to understand, and, as he had no conception of the theory of marginal utility, it is very incomplete. For these reasons we will not consider his analyses further, though for originality and keenness they deserve the highest praise.

In recent years a theory of permanent bounties has been worked out based on the difference between industries of decreasing returns and industries of increasing returns. It is maintained that a country may increase its wealth by encouraging industries of the latter class at the expense of industries of the former class. The most thorough and scientific discussion of the economic effects of taxes and bounties under different conditions of production is given by Professor Alfred Marshall.² He considers the cases of industries of constant, increasing, and decreasing costs, and elucidates the problems by means of diagrams, showing the effects

¹ *Recherches sur les principes mathématiques de la théorie des richesses* (1838), c. VI and chs. X–XII.

² *Principles of economics*, p. 528 ff.

of a tax and of a bounty upon what he calls consumers' rent or surplus. This surplus is represented in the diagrams by the area included between the demand curve, the Y ordinate of reference and the top of the parallelogram representing the market value of the given commodity. This surplus, psychologically considered, is the satisfaction enjoyed by the body of consumers in society by reason of their environment which enables them to buy the commodity at less sacrifice than they would be willing to make rather than forego the consumption of the commodity.

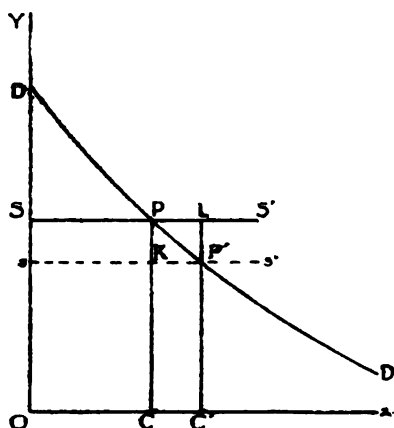


Fig. 1.

In the case of a commodity, the production of which obeys the law of constant returns so that the supply price is the same for all amounts produced, a bounty will cost the state more than the amount of surplus satisfaction gained by the consumers. This is most clearly shown by the diagram, Fig. 1. DD' is the demand curve, SS' is the supply curve, OC the amount of commodity and CP the price before the bounty is given. PK is the rate of the bounty, and the new supply curve, ss' , is

projected in the diagram by drawing it parallel to SS' and at the distance PK below. It is assumed of course that the bounty is specific, *i. e.*, it is given per unit of commodity produced. It is also assumed that the bounty acts merely as a reduction in the costs of production and that this reduction of costs is handed on to the consumers in the shape of reduced price. Where the new supply curve cuts the demand curve will be the new point of maximum satisfaction. The perpendicular $P'C'$ let fall upon Ox from this point represents the new price, and OC' represents the amount of commodity produced after the bounty is given. At the rate PK or LP' on an amount OC' of commodity, the total amount of the bounty is the parallelogram $SsLP'$. The amount added to the consumers' surplus is the area $SPP's$, which is less than the bounty by the area PLP' . It would therefore be unwise to grant a bounty to an industry of constant costs under normal conditions.

The same diagram serves to illustrate the working of a tax. Let ss' be the old demand curve and $P'L$ the rate of the tax. The new demand curve will be at the distance $P'L$ above ss' and parallel to it. OC will be the amount of commodity produced and CP the price under the new conditions. The gross amount of the tax is given by the parallelogram $SsKP$. The loss in consumers' surplus is the area $SsPP'$, which is greater than the receipts from the tax by the area PKP' . In an industry of constant returns then, the gross receipts from a tax are always less than the loss of consumers' surplus.

Professor Marshall points out that the area PKP' is small or great according as the demand curve is steep or gradual at this place. "Thus it is smallest for those commodities the demand for which is most inelastic, that is, for necessities. If therefore a given aggregate

taxation has to be levied ruthlessly from any class it will cause less loss of consumers' surplus if levied on necessities than if levied on comforts."¹

The case of an industry of increasing costs is some-

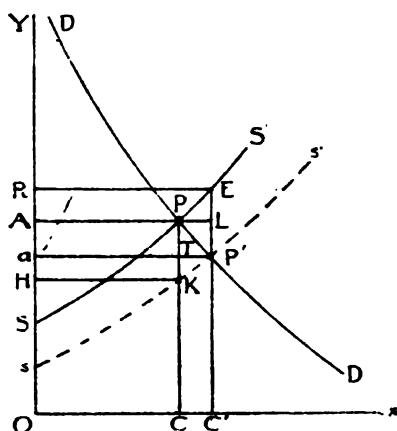


Fig. 2.

what more complicated. In Figure 2, SS' represents the old supply curve, and the rest of the nomenclature is as in Fig. 1. To project the new supply curve measure off on PC the distance PK equal to the rate of the bounty given. Through the point K draw ss' parallel to SS' . Where the new supply curve ss' cuts DD' is the new point of equilibrium. The total amount of the bounty in this case is represented by the area $REaP'$, for aP' is equal to the amount of commodity produced under the new conditions and $P'E$ is the rate of the bounty. The amount added to the consumers' surplus is $APP'a$, which in this case is less than the amount of the bounty by the area $RAPP'E$.

Translated into ordinary language this means that a bounty to a commodity which obeys the law of diminish-

¹ Principles, p. 528, note.

ing returns or increasing costs will, by lowering the price, increase the demand and consequently extend the margin of cultivation to places and conditions in which the gross expenses of production are greater than before. Thus it will lower the price to the consumer and increase consumers' surplus less than if the commodity obeyed the law of constant return. As we have seen the bounty is greater than the increase in consumers' surplus under conditions of constant return, it is therefore much greater under conditions of diminishing return. In both cases thus far treated, it is to be noted that the steeper the demand curve is inclined the more closely the area representing the total amount of the bounty corresponds to the area representing the addition to consumers' surplus. From this it appears that bounties on the production of necessities are less wasteful than on articles of comfort or luxury, other things being equal.

A tax levied on a commodity which obeys the law of increasing costs may subtract a smaller amount from consumers' surplus than the gross receipts of the tax. This may be shown by Fig. 2 as follows. Let SS' be the old supply curve. To project the new supply curve prolong the perpendicular $C'P'$ and lay off the distance $P'E$ equal to the rate of the tax. Through the point E draw the new supply curve SS' , parallel to the old. Where SS' cuts DD' is the new point of equilibrium. The area $AHKP$ is the total amount of the tax, because KP is equal to the rate of the tax and HK is equal to the quantity of the commodity. The loss in consumers' surplus is $APP'a$. The gross receipts from the tax will be greater or less than the loss of consumers' surplus as $aHKT$ is greater or less than the area $P'TP'$. In the diagram it is obviously much greater; but the more nearly horizontal the supply curve is, that is, the more

ers' surplus is the area APP'a. Whether the gain in consumers' surplus is greater or less than the cost of the bounty depends on whether the area ARBP is greater or less than the area BEP'. It is obvious that the more nearly the supply curve approaches the horizontal, the smaller becomes the former area, until it is smaller than BEP' and finally vanishes when conditions of constant costs are reached.

That is to say, a bounty on a commodity the production of which is cheapened with increased output will cause a fall in price greater than the rate of the bounty, and, if the economies of production attending increase of output are very great, the addition to consumers' surplus may be greater than the cost of the bounty.

The effect of a tax in this case, is of course to raise the price more than the rate of the tax. In the graph, the area AHKP is the gross amount of the tax, while the loss of consumers' surplus is the area APP'a, which is greater than the tax by the area HKPP'a.

From the foregoing discussions and representations may be built up an economic theory for a permanent system of bounties on production. Professor Marshall says,¹ "In the case of commodities in regard to which the law of increasing returns acts at all sharply, or in other words, for which the normal supply price diminishes rapidly as the amount produced increases, the direct expense of a bounty sufficient to call forth a greatly increased supply at a much lower price, would be much less than the consequent increase of consumers' surplus. And if a general agreement could be obtained among consumers, terms might be arranged which would make such action amply remunerative to the producers, at the

¹ Principles, p. 533.

same time that they left a large balance of advantage to the consumers."

Except that the above passage is rather too strong it is logically faultless. Professor Marshall goes on to say that a community could benefit itself economically by levying a tax upon incomes, or upon the production of goods which obeys the law of diminishing return, and devoting the proceeds to a bounty on production in which the law of increasing returns acts sharply. He mentions the practical, political and ethical objections and is careful to show that a tax upon agricultural products is not alone a question of gathering an income for the state at the expense of the consumers' surplus. The tax must be paid in the first instance out of the common product, and the effect of a tax upon producers and production must be taken into account just as much as the effect upon consumers and consumption. A tax "cuts like a two-edged sword" both consumer and producer. The loss to the community is always greater than the gross amount of the tax collected, even in the most favorable circumstances. Professor Marshall shows this by reference to a diagram representing the effects of a tax in case of an industry of increasing costs. If we assume that the technique and organization in agriculture and subsidiary industries remain the same for all amounts of product produced, then we may take the general supply curve to be a "particular costs" curve, *i. e.*, a curve representing the costs of production to the individual producers arranged in the order of the amount of differential advantage enjoyed by each.¹ Referring to Fig. 2, the supply curve ss' may be taken then as the particular costs curve before the tax is levied. Then $aP's$ is the amount of the producers' surplus or rent.

¹ Principles, page 521, note.

After the imposition of the tax the producers' rent is the area APS. If the tax is specific the curve SS' will be parallel to SS and the area APS will be equal to the area HKs. In this case the loss to the producers is equal to the area a P'KH, while the loss to the consumers is the area APP'a. The amount of the tax is APKH, which is smaller than the loss inflicted on producers and consumers, by the area PP'K. This is a rather laborious way of proving the very obvious fact that a community can not tax itself into opulence.

Professor Marshall also calls attention to the fact that the subjective value of money varies according to supply, like that of commodities, so that, "if the producers were as a class very much poorer than the consumers, the aggregate satisfaction might be increased by stinting the supply when it would cause a great rise in demand price (*i. e.*, when the demand is inelastic); and that if the consumers were as a class much poorer than the producers, the aggregate satisfaction might be increased by extending the production beyond the equilibrium amount and selling the commodity at a loss." He adds, "It is in fact only a special case of the broad proposition that the aggregate satisfaction can *prima facie* be increased by the distribution, whether voluntary or compulsorily, of some of the property of the rich among the poor."¹ He also considers that a society may profitably divert the expenditure of its members from commodities which obey the law of increasing cost to those which obey the law of decreasing cost. Aside from the practical difficulties, and the ethical disadvantages, he concludes, "that it might even be for the advantage of the community that the government should levy taxes on commodities which obey the law of

¹ Principles, p. 532.

diminishing returns, and devote part of the proceeds to bounties on commodities which obey the law of increasing returns."¹

He hastens to add that all this does not afford a valid ground for governmental interference, but merely shows what remains to be done "by a careful collection of the statistics of demand and supply, and a scientific interpretation of their results, in order to discover what are the limits of the work that society can with advantage do towards turning the economic actions of individuals into channels in which they will add the most to the sum total of happiness."²

The veneration paid to mathematics as *the* exact science may lead some to suppose that the application of mathematical formulæ to economic problems means the solution of all vexed questions. It may be worth while to observe that, so far as economics is concerned, mathematics is not a science at all, but a method; and no matter how exact mathematics may be in and of itself, the exactness of the mathematical results in economics is conditioned by the material more than the method. Whether the use of mathematics to solve economic problems is a matter to cause rejoicing or sorrowing depends upon the method of applying the

¹ Principles, p. 536.

² For the contrary view, see Nicholson's Principles, Vol. I, pp. 231-4. He says, "To spend a given sum of money, so as to produce the greatest happiness to the spender, cannot properly be called economic expenditure; this refers to value received for value given and not to the happiness which may follow on the completion of the bargain. Still less can we advance from the individual to the community and say that 'the aim of economic distribution is to apportion the produce among the members of the community so that the greatest amount of utility or satisfaction may be derived from it.'" If value has nothing to do with happiness, then indeed is economics a dismal science and the search after distributive justice is vain.

method, for the more exact the reasoning the more dangerous it becomes if used carelessly. The men who have contributed most to render political economy odious have been the most exact and logical thinkers who have reasoned from wrong premises.

Professor Marshall has pointed out some of the difficulties in the way of applying the graphic method of analysis in these cases. There are yet other difficulties. It is not sufficient to show that an industry is one of decreasing costs in order to enter it as eligible for a bounty. The costs, or supply, curve must show a certain *degree* of steepness. No means has yet been suggested by which the actual shape of such a curve can be foretold. It is more than doubtful if statistics can ever be collected which will enable us to say with assurance that a bounty to any particular industry would result in a net gain to society.¹ It is even more difficult to estimate the course of demand. No amount of statistics of consumption will enable one to guess what will take place when the normal conditions are disturbed by a bounty. Leaving out of account the political and ethical objections, it does not seem possible to make any practical application of this very scientific theory of bounties.

Besides the practical objections mentioned, there seems to be a flaw in the theory itself. Its validity rests entirely upon the possibility of measuring accurately that rather confusing entity, consumers' surplus. I do not believe this is possible, even within the narrow

¹ The off-hand assumption that extractive industries are always industries of increasing costs, while manufacturing is always attended by decreasing costs, is not always true. Every industry if carried far enough reaches the stage of increasing costs. See Marshall, pp. 393-400; Nicholson's Principles, Vol. I, pp. 151-174.

limits of a change in prices due to a tax or a bounty.¹ All will agree that we receive a surplus of satisfaction by reason of our conjuncture, but it is not possible to measure this. A protective system based upon hypothetical additions to consumers' surplus would be fantastic in the extreme. Such a system would be obliged to take into consideration not merely groups of industries, but individual distribution as well. The "faculty theory" bears the identical relation to distribution of the benefits of a bounty as to distribution of the burdens of a tax.²

Professor Marshall makes the very improbable, in fact the impossible assumption that the consumers receiving the benefits of the bounty will belong in every instance to the community paying its costs. Unless a prohibitive duty is laid on export the lowered price will cause some of the commodity to be exported, and the consumers' surplus on this portion will certainly not go to offset the cost of the bounty. A bounty does not act like a reduction of normal costs due to improvements in production. Such improvements benefit all consumers alike, without imposing a sacrifice on anyone; a bounty on the contrary must be paid by one community and the benefits will be reaped, at least in part, by other communities. This very obvious fact renders the collection of statistical data superfluous; for no protectionist will assert that it makes no difference what consumers or what communities gain the benefits of the bounties so long as somewhere more wants are satisfied and hearts, foreign or domestic, are made glad.

*Bounty
reaped
in own
but also
others
vicariously
reap it*

For reasons above made clear, I do not grant the ad-

¹ See Nicholson's Principles, Vol. I, p. 57 ff.

² Space does not permit a fuller discussion of this important principle.

visability of giving bounties to American shipping as a permanent policy. If these grounds were not sufficient, it could be shown that the possibility of increasing the demand for steamships by lowering the price by means of a bounty, is not enormous. There is no great popular demand for steamships, though the utilities of a steamer are of course consumed by all those who travel or send freight by it. The technique of the sea transport industry is relatively so highly developed, and the supply of steamers at present so greatly exceeds the number necessary to carry most economically the sea-borne commerce of the world, that it is preposterous to suppose that a bounty to our shipping would at once greatly increase the demand and, as a result, increase shipbuilding in the United States. One freighter of 10,000 tons could easily do the freighting for a half million people, and a fleet of forty "Deutschlands" could carry on the passenger and express business of the world. The economies due to large production are not to be underestimated in the shipbuilding industry; and, on the contrary, the possibilities of carrying on large production are not to be over-estimated. The argument for encouraging an industry of increasing return, if it have any applicability at all, is not applicable in this case. It is impossible to have two Clydes at the same time. The increase of ship-building on the Delaware must be attended by a corresponding relative decrease somewhere else, because the demand for ocean steamships is rather inelastic.

As to bounties on the navigation of ships the case is slightly different. It is possible to think of a bounty so increasing the activity of shipping by lowering freight rates that the invested capital would be much more economically employed. This more constant employ-

ment of capital, coupled with better organization in the transport industry, *might* result in a benefit to humanity greater than the cost of the bounty. The chance that that particular portion of humanity paying the bounty will receive a surplus of satisfaction is rather slender,—microscopic in fact, especially since the innumerable protective duties and other obstacles to exchanges make the demand for ocean transportation inelastic rather than elastic, as it might be under free trade.

In so far as bounties to American shipping would act merely to equalize the greater costs of building and running American ships, they would be utterly lost, for freight rates could not be lowered so that neither we nor the rest of the world would receive any benefit. This objection of course holds only in case higher costs are the result of a relatively disadvantageous economic situation. Comparative costs, at present unfavorable to us, will probably be turned in our favor. The bounties paid by France and Austria certainly go in large part to support industries that have no right to exist. The bounties are lost with no promise of ever being regained.

Again if bounties to shipping act so as to increase the number of ships beyond the tonnage necessary to move the sea-borne commerce of the world most economically, they are in so far worse than wasted. No supposition could be more erroneous than that an increase in the number of ships will lower freight rates because of the greater competition. Our experience with competing lines of railroad should have taught us wisdom in this regard. Every ship represents a certain amount of capital upon which interest at the normal rate must be reckoned. Every superfluous ship is a pauper which must be supported at the expense of active shipping,—indeed every day's idleness, every unused compartment of a ship in

service represents unused capital which eats up the earnings of active capital. Now the bounties which certain patriotic citizens propose to give to American shipping are to be given for the purpose of increasing the total number of ships, though it is well known that rational economics demand, not more ships, but better organization in the sea-transportation business. The bounties given by other nations have had this same object in view, and if they have not always operated actually to increase tonnage under the national flag, they have most assuredly kept the national marine from declining so rapidly as it otherwise would have done, and have thus acted indirectly to increase tonnage beyond the point of greatest economy. This has been especially pernicious in practice because the effect has been generally to keep inefficient tonnage in service, or to build new tonnage which is not by any means best adapted to meet the demand for freight and passenger transportation most economically.

Bounties on Export—Bounties on export are of some practical importance at present, because of the propositions to give a bounty on agricultural exports in aid of our shipping. Adam Smith¹ and David Ricardo² discussed the bounties on the export of corn, and though their assumptions and reasoning are not always correct, their conclusions that the bounties decreased the wealth of the nation giving them are correct. It will generally be admitted that bounties on export have little to recommend and very much to condemn them, and of all export bounties those on agricultural products are the worst. After the rather full discussion of the economic arguments for bounties on production, it is scarcely necessary

¹ *Wealth of nations*, Book IV, ch. V.

² *Principles of political economy*, ch. XXII.

here to consider the arguments advanced in favor of the export bounties, for it is obvious that, if bounties on production have no economic ground to stand on, then the export bounties are left suspended in the air.

It is interesting to notice that the tariff duties in the United States, Germany, Austria, and France operate in many cases exactly as premiums on export. The home market is protected against foreign imports; the domestic producers find it to their individual profit to combine to keep prices up in their home market, a very little below the point of profitable import from abroad, and to dump the so-called "surplus" production on the foreign markets at any obtainable price. The argument is advanced that in this way the market is greatly extended leading to such marvellous economies in production that consumers in the producing countries can buy the protected commodity cheaper than they otherwise could, even though they must pay a monopoly revenue price sufficient to pay all fixed charges and perhaps some of the variable costs on the product exported. Now it is perfectly evident that the price in the home market must, under these circumstances, be a very long way from the point of maximum satisfaction to the consumers under the given organization and technique of the protected industry, while foreign purchasers, or rather foreign protective tariffs are absorbing the hidden indirect bounties which are being squeezed from the domestic consumers. That the domestic consumers are enjoying lower prices than would be the case were the protective duties removed and the foreign market (let us assume) entirely lost, is not likely; for the prices in the home market are held as near as may be to the point of highest monopoly revenue by the protected trusts. *These prices are often sufficient to pay all fixed costs, the vari-*

able costs on the product consumed at home, and, in some cases, part of the variable costs of the exported products. The export trade of the United States iron and steel industries is looked upon as a mere safety valve to relieve the pressure of over-production.¹ Our export of manufactured articles is insignificant compared to the enormous domestic consumption. It is not probable that to cut off this comparatively insignificant foreign export will necessitate the raising of prices to domestic consumers. The fixed costs will not be increased by a curtailing of production, and these costs are already paid by purchasers in the home market. If prices were brought down to competitive figures in the home market, it is probable that total consumption, instead of decreasing, would actually increase so that the variable costs per unit of commodity would be diminished. There can not be much doubt that the removal of these virtual bounties on export would result in a great economic gain to the community. It would not benefit the protected industries, however, and the duties are likely to remain for a long time to come.

At this point the protectionist changes his line of argument and tells us that to take away the protective duties will enable foreigners to come in and undersell our manufacturers in the home market. Obviously this statement and the one just discussed are mutually annihilatory. But such abysmal breaks in reasoning are not uncommon in tariff discussions. As we are not discussing the general theory of protective duties, but only the special case where they act as hidden indirect boun-

¹ See testimony of Chas. M. Schwab, in *Reports of industrial commission*, vol. XIII, pp. 464 ff. Also testimony of H. W. Lamb in same volume.

ties, we will not follow the Fabian protectionist, but leave him in possession of this portion of his field.¹

¹The protectionist regards the free-trader as a creature devoid of patriotism,—a dreaming philosopher filled with visions of a great international state founded on the idea of a universal brotherhood of man. It may be worth while to note that Adam Smith and all his free-trade followers to the present day were and are intensely patriotic and remarkably devoid of any sickly sentimentalism as to the universal brotherhood of man. Further, no free-trade economist has ever proposed to promote general human happiness indiscriminately by giving part of his country's wealth to the consumers of other countries. This is distinctly a protectionist doctrine. The conflict between protectionism and free-trade is not and never has been a conflict of nationalism against internationalism. The free-trader thinks to increase the wealth and importance of his country by giving industry a free course. The protectionist thinks to accelerate progress by stimulating some industries at the expense of others. If accelerated progress of protected industries is the chief end and aim of national existence then the protective theory is correct and it is even possible that this ideal has at times been partially realized in practice. But if national well-being is the goal of national life, then the protectionist doctrine is a most dismal failure. Protective duties at best can increase the national wealth only at the expense of the national well-being, and bounties distribute a part of both national wealth and national well-being among foreign peoples. The protectionist's intense nationalism expresses itself in a systematic forcing of his countrymen to do a larger share of the world's production for a smaller return than economic law would assign to them. The taking of the burdens of labor from the shoulders of foreign peoples and forcing goods upon them at prices below cost, this is the true international philanthropism. Establishing industries for the sake of being industrious appears to the free-trader a waste of national resources and a burden on the people. Business for business' sake is too subtle a proposition for him to wrestle with.

It is perhaps worth suggesting that, if every nation should attempt to enrich itself by taxing agriculture and subsidizing manufacture, the result would be a relative over-production in manufacture and under-production in agriculture, the effects of which can not be foreseen. Commercial and industrial crises would undoubtedly work most disastrously until a new norm in industry was established. Of course these disturbances would lead to changes in the bounties so that the final outcome can not be even guessed at.

POPULAR ARGUMENTS FOR SUBSIDY

Introductory.—The practical statesman troubles himself little about pure economic theory. He would scarcely understand Professor Marshall's treatment, purporting to show the possible economic benefit of bounties. From the standpoint of practical politics it is not worth while to discuss a scheme for bounties which is based on mathematics higher than simple arithmetic. The chances that Professor Marshall's graphic representations will ever be made a plank in a political platform declaring for a bounty system are exceedingly slight. It would be difficult to arouse great enthusiasm among the farmers for a scheme proposing to lay upon agriculture the burden of all taxation, including a nice sum to be paid to the manufacturers as a bounty. We may rest assured that the graphic method will never be used to open the pockets of the taxpayers. The mathematics used to demonstrate the necessity for a bounty to shipping is of a much simpler sort. For example, it is said that England gave subsidies and her commerce and shipping increased. More recently Germany gave subsidies and since then her commerce and shipping have increased. Ergo, subsidies are beneficial and if we would not be left behind, we must give subsidies. By the same sort of mental process, which is sometimes called reasoning, the simple minded savage persuades himself that comets and shooting stars exercise a baneful influence over the affairs of men. The statistics of commerce and merchant tonnage, which are used so freely to show the necessity for voting a subsidy, are entirely devoid of significance, and the childish confidence of some of our oldest politicians in these meaningless columns of figures is discouraging.

The statistics of the commerce and shipping of France, Italy, and Austria, quoted by the opposition to show the harmfulness of bounties, are by no means so worthless, for they show that, at least in some cases, bounties do not lead to an expansion in commerce and shipping. But to conclude that a bounty to shipping in the United States would act like a bounty to shipping in France is the reverse of reasonable. It is quite probable that this country would increase its shipping by means of bounties; but, as has been repeatedly pointed out, the enlarging of an industry by government aid does not mean an economic gain, much less an ethical gain.

Although the popular arguments for bounties are based on meaningless statistics, and are rather oratorical than logical, it seems necessary to consider some of the assertions most frequently made and most likely to mislead.

Saving of Freight Charges.—The subsidy advocates assert that the vast sums paid to foreign shipowners as freight charges will be saved to the country as a result of the bounties. This they regard as their most telling "economic" argument for the subsidies. Mr. Charles H. Cramp, of the Cramp shipbuilding firm, has used this argument with peculiar enthusiasm and energy.¹ He informs us that we must pay the freights both ways, if we employ foreign shipowners to carry our exports and imports. Continuing he says: "No fine spun theory of cloistered or collegiate doctrinaire can wipe out these facts." We cannot but feel a passing qualm of pity for the miserable doctrinaire, culpable though he may be. It seems needlessly harsh to crush him so remorselessly with such very wonderful facts. The only possible

¹ "American shipping," by C. H. Cramp in *Iron Age*, Apr. 15, '97, p. 19.

criticism of these facts is that they are not true. It is only Mr. Cramp's authority as a business man which makes it needful to consider his assertions here. He asserts positively that no nation can own ships unless it builds them. He tells us that the United States is the most profitable dependency of Great Britain. The position of India is pitiable; that of the United States is contemptible. English prosperity means the misery of every one else. We pay a tribute of \$300,000,000 every year, and never get any of it back except by borrowing it on bonds. There is thus a ceaseless ebb of gold from this country to England. This is a fair example of the business man's economic theory.

Nor do our protectionist statesmen get much higher than these crude misconceptions of what really takes place in the commercial world. Mr. James G. Blaine may be fairly said to have represented the best and most intelligent views of the protectionists. In a speech delivered before the New York Chamber of Commerce in 1881, he said, "We pay \$110,000,000 per annum for the carrying of products between this and foreign countries. Think of it! \$110,000,000 in gold coin has gone out of the commerce of this country into the commerce of other countries. Can New York stand this? Can this great port stand such a loss as this, with all her unbounded advantages of position and of resources, and with the magnificent continental commerce that stands behind her? I say, gentlemen, that if the carrying trade of this country, aggregating \$110,000,000, is permanently turned from us, then the question of specie payments becomes one of far more complicated difficulty than it is today, and the only way to make it easier of solution is to turn the current of gold from those coffers into our own."

The flow of gold from our coffers into those of foreign countries has ever had a most distressing effect upon our mercantile economists, whether they have been in the shipbuilding business, ocean transportation business, or in the United States Senate. This appalling state of flux has inspired full many a sublime flight of oratory; it has been the motive of much laborious "statistical" work. We might ask if gold really does flow out of this country, or why it should do so simply because foreign ships do out freighting for us. We might inquire what dreadful evil will befall us if we shall pay our freight bills in gold. Since Mr. Blaine's speech our foreign commerce has gone on increasing enormously, while our merchant marine engaged in foreign trade has continued to decrease. Yet the country has not been ruined, nor have specie payments been suspended. Even the great port of New York has borne up remarkably well under the terrific drain of gold which according to Mr. Cramp is increased to \$300,000,000 per annum.

What are the grounds for asserting that we must pay the freights both ways as a penalty for our inability to run ships under the American flag? The comprehension of this subtle theory is strictly limited to those men in the shipping industry and some few "practical statesmen." There is not even the most superficial excuse for such a statement. If our merchants were the only merchants in the world, then it might be said that they must, in the first instance, pay all freights. The absurdity of assuming that we must deduct freights from the value of our exports and add freights to the cost of our imports, is too evident to need discussion. Professor Cairnes¹ shows that of two countries carrying on ex-

¹Some leading principles of political economy newly expounded, (ed. 1876) p. 344.

changes, the one that has the greater natural resources exchanges at an advantage because of the greater productivity of its labor and capital. The cost (meaning the subjective cost) of 1000 units of value is less in the United States than the cost of a like number of units of value in England. He argues, therefore, that the United States derives the greater benefit from exchanging. Taking this view we may reasonably say that England in reality pays the freight both ways, or, at least, the greater part of them. Whoever pays the freights, the mere fact that commerce between the United States and Great Britain is carried on and is steadily increasing, shows, beyond the possibility of contradiction, that the commerce is profitable to both countries. If the statements of Mr. Cramp and Mr. Blaine really required refutation the statistics of commerce would furnish a sufficient rejoinder.

It must be evident to anyone who understands the first elementary principles of international trade, that we pay no more than our proper share of freight charges. But, Mr. Blaine and his followers tell us, the amount we do pay goes into the hands of foreigners and is "diverted from our commerce." It is forever lost to us, unless we borrow it back on bonds. Here again the vacuity of the argument baffles the economist. Furthermore it is not and never has been true that the entire amount paid to foreign steamship lines in freights goes out of the country. A large percentage of the tonnage carrying our foreign commerce is owned by American capital though sailing under foreign flags. The profits and dividends on capital remain in this country, which fact should soothe the sorrow of those who mourn for the gold that flows out of our coffers. And if we pay Englishmen, Germans, and Norwegians ever so many millions of

dollars for doing services which would cost us a great deal more if we performed them ourselves, there is nothing but economic gain to us in the transaction. Why should we remove capital and labor from other pursuits and take over the carrying trade? In order to keep this alleged 110 or 300 million dollars at home? But why should we work to keep this particular sum at home rather than the amount we pay for English worsteds, or French laces? To name the enormous amounts we might save by doing our own transportation does not prove our economic degradation. It must be shown how many millions we must pay out in order to save these \$300,000,000 per annum before we can estimate the wisdom of engaging in the international freighting business.

Let us suppose that we pay foreign ship owners \$150,000,000 per annum for carrying our freights. If we decide to dispense with the services of foreign ships, and do our own freighting with American built ships, owned by American capital and manned by American citizens as it is proposed, it means that we must divert capital from other lines of industry to the amount of at least a billion and a half of dollars and invest it in shipping. If this capital invested in other enterprises would earn \$180,000,000 per annum, plainly the change to the shipping industry would result in a direct and immediate annual loss of \$30,000,000 in the total social product, owing to the decreased productivity of capital and labor. This direct loss does not by any means measure the whole economic loss of such a change in industry. Capital and labor will not engage in the carrying trade unless they receive remuneration equal to what they receive in other industries in our country. They must offer services at least as cheaply as foreign rivals. Under the assumed conditions, the only possible way to save

the amount paid to foreigners in freights is by means of a bounty of \$30,000,000 per annum. This loss would be augmented by the cost of collecting the tax and administering the bounty, besides the losses due to the disturbance of other industries by the tax and the rapid and wasteful change to another industry. Of course the change could not take place immediately, but if the relative productivity of capital and labor in the United States and in foreign countries remained unchanged during the transition, the reasoning would still hold good.

It may be objected that the conditions imposed are contrary to fact. It is true that the figures are not "statistical", but I have rather underrated than overrated the difference in productivity of capital and labor engaged in international shipping compared with their productivity in American industries, up to very recent times at least. I have merely attempted to show the absurdity of advocating bounties to American shipping on the ground that by so doing we will save the amounts we pay to foreigners, regardless of the actual conditions in the sea-transportation business. It seems pretty clear that this would be the most expensive economy that could be introduced. The profitableness to the nation of going into the freighting business depends upon the result of complex kinetic changes: either interest and wages in this country must fall to the level of interest and wages in sea transportation, or the productivity of capital and labor employed in American shipping must be increased so as to give a margin to shippers in the form of lower freight rates, after paying the higher wages and interest charges. Interest rates in the United States have fallen about to the level earned in the ocean-transportation business, as is demonstrated by the fact that American capital is more and more seeking investments

in steamships. American capitalists own more ocean-going steam tonnage to-day than those of any other country except Great Britain. If our navigation laws were revised after the fashion of the German or British laws, doubtless our marine engaged in foreign trade would be increased very greatly by the addition of the large number of foreign-built steamers owned by American capital, but excluded by our laws from American registry. If it is so very desirable that the ships that carry our commerce should also carry our flag it would seem a very sensible move to repeal this foolish prohibition.

In any case there is no sense whatever in the hysterical demand that we must own the ships that carry our commerce in order to keep the amount we pay in freights within our own national boundaries. The mystery and romance of the sea seem to have a most confusing effect upon the rational faculties of some statesmen. They associate the money earned by a steamship with the fabulous wealth of the Spanish main. There is nothing extraordinarily attractive or remunerative about the sea-freighting business. It would be very uneconomical to lure or drive capital and labor into this business if they are earning as much or more in other lines. If Mr. Blaine had been advised to cut down his household expenses by discharging his janitor and employing his own energies in the lucrative industries of carrying coal, cleaning the furnace, sweeping the cellar, etc., thus saving the relatively large sum of \$400 in gold every year, and at the same time building up a flourishing home industry, he would have been amazed—perhaps displeased. Yet such a suggestion, is scarcely more rid-

iculous than the eloquent appeal for a merchant marine made by Mr. Blaine in 1881.

All advocates of subsidies lay great emphasis upon the alleged fact that freights are paid in gold, thus making a constant drain upon the supply in this country. It is the old familiar mercantilist doctrine that rises eternally new. We do not, as a matter of fact, pay freights in gold unless it is cheaper to do so. It is true that the ship owner receives his freight money in gold or its equivalent, but the gold paid to him is purchased in the cheapest market. There is no magic about ocean transportation charges. They act just like other values in balancing up international exchanges. Whether or not we export gold to England is determined chiefly by facts wholly independent of who carries the freights. It is no more true to say that we pay freights in gold, than to say that we pay for English clothing in gold. This frightful "drain of gold from our coffers" into the pockets of the English and other foreign ship-owners exists only in the vivid imaginations of the apostles of shipping subsidies.

Does trade follow the flag?—It has been stated above that the extension of our commerce by means of a bounty is possible only in case the bounty acts so as to reduce freight rates. The advocates of ship subsidies do not usually mention the possibility of a diminution of freight rates. They rely upon the flag to extend commerce. "Trade follows the flag" is at once watchword and argument with them. Statistical support for this assertion is furnished in copious abundance, but like all the statistics thus far examined the figures are meaningless. It is shown, for instance, that the commerce of Germany with the Far East has increased since the North German Lloyd contract with the gov-

ernment was made. It is complacently assumed that the increase is due to the subvention, and that the proposed subsidies will act in the same way. The fact that German commerce increased just as rapidly before as after the granting of the subvention, is not mentioned.

The subsidy agitators see in every foreign ship-owner or master a deadly enemy who is seeking to promote the commerce of his own native land at the expense of every other land. Now it is a fact of no small economic importance, that a foreign ship-owner is always willing to carry American goods for a consideration, no matter how heartily he may hate Americans. Sea transportation is a business, and not a religious or sentimental activity. Obviously this whole argument for national ships becomes a *reductio ad absurdum*, for how shall maritime nations promote their commerce without at the same time promoting the commerce of those countries with which they trade! It may be asserted that the nation without a merchant marine is excluded from intercourse with undeveloped and colonial countries. But the undertakers of all nations are watching keenly for every opportunity to do profitable business. Our commerce with the Levant has increased so greatly in recent years that the Hamburg-American Line has found it advantageous to found a regular freight line between New York City and the ports of the eastern Mediterranean. Our commerce with the English colonies in South Africa has increased more rapidly than that of either England or Germany, though the two latter countries have their regular postal lines to South African ports. American agricultural implements have practically displaced German farm machinery in the Transvaal, because they are better, lighter and cheaper. No case has yet come on record of a German ship-mas-

ter refusing to carry American goods on the grounds that it might injure German trade. The complaints that American shippers cannot find transportation for their goods are heard in the halls of Congress, but not in the Boards of Trade. Our commerce with China is carried on mostly by American ships, but Japanese, English and German ships compete with our own for a share in this carrying trade, as also in the trade with Australia, India, and other parts of the world. On the margin of indifference it is probable that patriotism would decide the direction of commerce. For example, if a German sailing master had collected cargo in Chinese waters which he could take to Hamburg or New York with equal chances of making profits, he would probably go to Hamburg. But such cases are not numerous enough to make it worth while to pay nine or ten million dollars yearly in bounties to regular American postal lines on the chance of catching this trade.

It may be said that the captain of a regular liner has no choice but to take his cargo home, so that national trade is bound to be increased. It must be remembered, however, that subventioned steamers carry an insignificant part of the world's commerce. About two per cent of the British merchant marine receives subvention from the government and are bound by contract to sail over prescribed routes within certain time limits. A somewhat larger portion of the German marine is so situated :—six per cent would be a most liberal estimate. French sailers and steamers receiving the general subsidy are under no compulsion to increase French trade, and as a matter of fact choose the longest routes between foreign countries for their activities so as to earn the largest possible bounties. National commerce is a very secondary matter with them. In fact the disadvantage of being

compelled to sail regularly over the same definite course is urged as one of the chief reasons for the payment of subsidy to the postal lines. At the same time it is urged that regular communications are very much superior to an arrangement of voyages according to the needs of commerce. France has taken infinite pains to establish regular mail lines, and to encourage French shipping so as to promote her commerce, but her exports and imports have remained practically stationary. The United States has done almost nothing in these directions, and her commerce has increased enormously. The history of the world's commerce seems to show conclusively that the nationality of shipowners is quite a secondary matter in the development of trade.]

POLITICAL ARGUMENTS FOR SUBSIDY

In the foregoing pages we have shown the improbability or impossibility of any economic benefit accruing to the people of the United States as a result of a bounty to American shipbuilding or navigation. It was shown that, first, no scientific basis for a bounty system of any kind exists; second, granting the validity of the argument for a bounty to industries of increasing returns, the necessary relation of supply and demand fails in the case of the shipping industries; third, granting the validity of the infant industry argument, which can not claim to be more than an economic faith, we found that this flexible term must be stretched to the cracking point in order to cover such a huge infant as the steel shipbuilding industry of the United States, while the fundamental assumption that capital needs the intelligent guidance of government fails utterly in this case.

There is, then, no sound economic leg for the theory of shipping subsidies to stand on. There remain, however, to be considered the political reasons.

Three political objects are alleged in support of shipping subsidies in the United States. First, the necessity of quick postal communications with our foreign possessions and other distant parts of the world; second, the necessity, or at least the desirability, of having large swift merchant steamers suitable for conversion into cruisers and fast transports in time of war; third the necessity of a large merchant marine to train up crews for our war navy.

There is no objection to the establishment of postal lines if the arrangements are made as matters of business, not of sentiment. For important reasons, an empire should control all necessary communications with its different parts. This does not mean the exclusion of foreign vessels from the transportation of the mails, passengers and freight. Necessary national postal services should, however, be established, for which reasonable compensation should be paid. Whether a general act is the best means of reaching this end may be doubted. Though it is generally impossible to have any real competition in bidding for ocean mail contracts, the services should be secured at rates as near as possible to competitive rates. The postmaster-general should be left as free as possible to arrange the kind of service, vessels, etc. These payments for carrying the mails should not be confused with subsidies to the general merchant marine. In practice postal subventions are always given with a view to the extension of commerce. If the payments exceed the actual cost of service, they are economically pernicious, though they may increase the shipping of the subsidized company, and even divert

commerce from more economical lines to the subsidized line. It appears probable that the rates of payment allowed in the last subsidy bill (1902) are considerably too high. True, the postmaster-general is authorized to reject all bids that do not appear reasonable to him. The rates are maxima and the services may be arranged for at any lower rates.

The policy of giving extra admiralty subventions to vessels convertible into cruisers in case of war is followed by England. The results are not satisfactory. Vessels built after admiralty plans are neither good merchant vessels in peace, nor good cruisers in war. The coal bunkers and machinery take up too much room for a merchant steamer; they are too slow to run away from the very swift vessels built solely for cruising, and too light to fight. The British Board of Admiralty reported in 1902 that the amounts already spent in admiralty subventions were practically wasted, and recommended that these payments be discontinued. War vessels are so highly specialized now that a merchant vessel cannot economically be made over into a naval auxiliary. Fast steamers built solely for commercial purposes make far better transport ships than do the convertible cruisers. The use of the vessels of the American Line as cruisers during the Spanish-American war did not furnish any evidence tending to modify these views. To expend large sums of money in creating a fleet of inferior merchant vessels capable of being converted into fourth rate cruisers is neither economical or politic. It is better then to have the mail steamers built solely for commercial ends. In any case the postal and admiralty subventions have no connection with building up the general merchant marine.

The necessity for subsidizing our ocean-going tonnage

in order to train up recruits for our navy is not pressing. The people interested in subsidy measures overlook the fact that the United States ranks next to Great Britain in tonnage of shipping to-day and has ranked second from the beginning of the nineteenth century. In ocean tonnage engaged in foreign trade, we rank third, close after Germany. It is asserted that subsidies to our fisheries are especially desirable, as most of the marines and sailors employed on our naval vessels come from the fishing vessels. If this is really the fact, perhaps the fishing bounties are justifiable. But so far as technical skill is concerned, a fisherman is no better instructed in the kind of labor required on board a war vessel than is a canal boatman. The idea that a large ocean-going marine is needed to strengthen our navy in time of war is utterly fallacious. A large merchant marine is in time of war a source of weakness, not of strength. Nobody takes seriously the provisions of the treaty of Paris declaring the shipping of an enemy to be neutral in time of war. Merchant vessels must be protected against the cruisers of an enemy, thus subtracting from the available force of the fighting navy.

ETHICAL CONSIDERATIONS

There are no good reasons, economic or political, for enacting subsidy legislation to aid our merchant shipping. On the other hand there are many weighty politico-ethical reasons for not giving bounties, even were they not economically wasteful and politically useless or worse. The tendency toward corruption or at least toward injudicious expenditure is irresistible. There is a danger which amounts to a certainty, "that in the

trade which has got a bounty and in other trades which hope to get one, people will divert their energies from managing their own business to managing those persons who control the bounties," as Professor Marshall puts it. Protected industries come to have a tremendous power over legislation and administration. This is an unavoidable consequence of protection. The larger and more powerful the industry, the larger and more peremptory become its demands for protection at public expense. We have had at least one notorious instance in our history of actual bribery by a steamship company to secure a larger bonus from the government. Our experience with subsidized railroads and industries protected by the tariffs should have taught us to distrust the whole principle of protection. Every aid given to private enterprises makes them the greater beggars, while it increases their ability first to ask, then to bribe, and finally to demand alms from the people.

The protectionist principle rests upon the assumption that legislatures are preternaturally wise and upright. All experience has shown that legislators frequently make errors of judgment, allow themselves to be guided more often by private than by political economy, and sometimes even sell themselves deliberately. Our own tariff legislation illustrates the extreme danger of enacting laws to benefit private undertakings. The tariff schedules are made up for the most part according to the desires of opulent "captains of industry." If a subsidy policy is once begun it may not be so easy to stop. Even though it could be shown that a proper subsidy judiciously administered would be economically beneficial, the impossibility of freeing the legislature from the corrupting influence of interested lobbyists would condemn the theory in practice.

Though the ethical considerations of distribution outweigh all other considerations, the protectionist does not discuss them at all. He only presents the side of production in a nation and that not correctly. We have heard altogether too much of the possibilities in production and not enough of justice in distribution. Distributive justice does not mean equality in sharing the product of industry. Just as little does it mean taking from the economically weak and helpless many and giving to the economically efficient few. It must be admitted that such a redistribution, could it be effected, would increase the productive efficiency of a society immensely. But no protective system can discriminate on these lines. In practice, protection gives an opportunity to a few to exploit the rest of the community. The favored ones are chosen by industries and not according to mental abilities. They are made up of all sorts from the strong, unscrupulous exploiter to the weak parasite. With regard to the mere production of goods, this new adjustment is less efficient, while from the standpoint of distributive justice it is wrong. The ethical standard of today requires that every man should receive as nearly as possible what he produces, unaided by governmental or private discriminations in his favor. If it be necessary to decrease somewhat our productive capacity to attain a closer approximation to this state, the sacrifice should be unhesitatingly made, for producing goods at a relative loss is not identical with economic prosperity. It is even conceivable that we could endure a little less "prosperity" and a little more distributive justice.

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INTRODUCTION

What is technically known as the "labor law" in the state of New York is contained in Chapter 415 of the Laws of 1897 as amended by subsequent legislatures. There is a great number of other laws affecting more or less directly the interests of the laboring class and commonly called labor laws.¹ To select from all these statutes those laws which may properly be said to comprise the factory law is by no means an easy task. The titles and wording of the statutes themselves give us no rule. Neither can we limit the factory law to those laws which are administered by the factory inspector's department, for the reason that many laws within the jurisdiction of this department have nothing whatever to do with factories, while on the other hand there are a number of statutes directly affecting factory employment, with the administration of which the factory inspector has nothing to do. As indicated by the title, this paper is a study of factory legislation and takes for its subject matter all the laws of the state having a direct and obvious bearing upon factory employment, regardless of whether such laws are or are not technically known as "factory laws." To avoid confusion it will be well at the outset to state just what laws will be thus considered, even though such a selection is to a certain extent a matter of personal judgment and may at times appear arbitrary.

In general the factory law is a part of the labor law (L. 1897, ch. 415). This chapter consists of fourteen articles, the first nine of which are administered by the

¹ For a complete list of these labor laws, analyzed according to subject matter, see Appendix.

factory inspector; the general subjects covered in these nine articles being, the public employment bureau of New York City, convict made goods, factories, tenement manufacture, bakeries and confectionery establishments, mines, and a number of miscellaneous matters contained in Article I, none of which relates to factories.¹ The public employment bureau and the subject of convict made goods, obviously lie without our province, and the same may be said of the laws regarding mines, although these are administered by the factory inspector. On the other hand, the subjects of tenement manufacture and the regulation of bakeries and confectionery establishments must logically be included in the subject of factory legislation.

We have thus limited the factory law to Articles V, VI, VII, and VIII of Chapter 415 of the Laws of 1897.

In addition to these parts of the labor law we must also include the compulsory education law, in so far as it relates to the employment of children in factories. The necessity for including this law in a paper on factory legislation will appear in the course of the discussion, if indeed it is not obvious at the outset. Another statute properly coming within this subject is the employers' liability law.

We have said that the regulation of tenement-house manufacture and of bakeries and confectionery establishments logically comes within the subject of factory legislation. This is true. Nevertheless, for a number of reasons, it has seemed best to omit these two subjects from this paper. Regarding bakeries, there is not much to be said that is not already covered in the general discussion of factory legislation and inspection. The sub-

¹ For the titles of the fourteen articles of the labor law, see Appendix.

ject of the regulation by law of tenement-house industry, on the other hand, is one of vast importance. However, until more is known about tenement-house industry itself it seems hardly worth while to try to show the effects of the laws; a conclusion which is strengthened by the fact that the legislation on the subject is still in the experimental stage, and that the administration has been so defective that the experiments even have not had a fair trial. The whole matter of tenement-house industry, including the attempts at regulation by law, is of course too large a subject to be embraced in a chapter of this paper. The laws relating to tenement-house manufacture, bakeries, and confectionery establishments are contained in Articles VII and VIII of the labor law.

We may state, therefore, that the purpose of this paper is to study the history, administration, and economic and social results of those laws of the state of New York which have a direct bearing upon employment in manufacturing establishments; these laws being (1) Articles V, and VI of the labor law,¹ (2) certain parts of the compulsory education law,² and (3) the employers' liability law.³ There are some few other laws relating more or less indirectly to factory employment. It will therefore be necessary from time to time to go outside the limits laid down, and no apology will be offered for doing so when the occasion demands it.

The period covered by this paper includes the legislation of 1903, all of which was in force by October 1, 1903.

¹The New York state department of labor issued in 1903 a little pamphlet entitled "Laws relating to labor to be enforced by the commissioner of labor," which contains the full text of the above articles of the labor law in convenient form.

²See pp. 105-106.

³See pp. 89-91.

PART I—HISTORICAL

CHAPTER I

LABOR LAWS AND CONDITIONS PRIOR TO 1883

New York's first factory act was passed in 1886, but three years earlier the legislature passed two laws which are of such vital importance to the movement in the state that the year 1883 may be more advantageously taken as the starting point in a history of New York factory legislation.

Prior to the year 1883 there had already been passed a considerable number of labor laws covering a variety of subjects, of which the most important were : regulation of apprenticeship, convict labor, the eight hour law, mechanic's lien, securing the pay of laborers on railroads, protection of seamen, and a number of laws regarding the rights and privileges of labor unions. Some of these laws, as for example the eight hour law and the laws governing apprenticeship, were practically dead letters, others were of only slight importance, and they all fall without the scope of this paper.

The work of women in factories and stores was practically unregulated so far as the laws of the state were concerned. There was a law (L. 1881, ch. 298) requiring employers of females in mercantile and manufacturing establishments to provide seats for their use, and to permit them to use the seats so far as necessary for the preservation of their health. But this law was a dead letter then and has remained so to the present day. There is no lack of evidence to show the non-enforcement of the act at the time. Employers admitted frankly that they were not complying with the

law and had generally no intention of doing so. The act made violation of its provisions a misdemeanor, but provided no penalty and created no machinery for inspection and enforcement. What little attempt was made at enforcement was done by voluntary efforts by philanthropists, and ended generally in failure. The difficulty of course was to secure evidence from the female employees affected. Plenty of complaints of violation were received by those interested, from women who worked in stores and factories where the law was violated, but when it came to appearing in court to testify against one's employer the matter took on a different face, as obviously such testimony from an employee meant her immediate discharge in every instance. In one case before a New York City court some fifty sales-girls appeared, all dressed in their best and in fine spirits, to testify in behalf of the *defense*.

This unenforced statute being the only one relating specifically to female labor, it will be seen that the employment of women was practically without regulation or safeguard from the law.

The case of child labor was not very different. There were laws forbidding the exhibition of children under sixteen years of age in theatrical and gymnastic exhibitions, and forbidding their employment in begging, collecting rags, and similar occupations. Such laws of course do not touch the real problem of child labor. A section of the penal code (L. 1881, ch. 676, sec. 289) was in force, which, interpreted with any strictness, might have been appealed to to prohibit a good deal of child labor in factories. This section reads as follows :

§ 289. A person who, having the care or custody of a minor, either

1. Willfully causes or permits the minor's life to be

endangered, or its health to be injured, or its morals to become depraved ; or

2. Willfully causes or permits the minor to be placed in such a situation or to engage in such an occupation that its life is endangered, or its health is likely to be injured, or its morals likely to be impaired ;

Is guilty of a misdemeanor.

It does not require any very extended study of the conditions under which young children were being employed in factories at the time, to bring one to the conclusion that a moderately rigid enforcement of this law would have driven many children out of the manufacturing establishments of the state. In this connection it is interesting to note that the Ohio legislature some years later adopted this section of the New York penal code bodily and with some slight modifications enacted it, for the express purpose of thereby enabling the factory inspector to stop the employment of children in a large number of dangerous occupations. The following extract from a circular, issued to employers throughout the state by the factory inspector, will show how the law was interpreted in Ohio :¹

"Minors under the age of 16 years shall not be employed at sewing belts, nor shall they be permitted to assist in sewing belts in any capacity whatever ; nor shall any such children adjust belts to any machinery ; they shall not oil or assist in oiling, wiping or cleaning machinery ; they shall not operate or assist in operating circular or band saws, wood-shapers, wood-jointers, planers, sand-paper or wood-polishing machinery, wood-turning or boring machinery, stamping machines in sheet metal and tin-ware manufacturing, stamping machines in washer and nut factories, operating corrugating rolls, such as are used in roofing or wash-board factories ; they shall not operate or assist in operating dough brakes or cracker machinery of any description, wire or iron straightening machinery ; nor shall they

¹ N. Y. fact. insp. rep. 1891, pp. 31-32.

operate or assist in operating rolling-mill machinery, punches or shears, washing, grinding or mixing mills, or calendar rolls in rubber manufacturing or laundrying machinery; such children shall not be employed in any capacity in preparing composition for matches, or dipping, dyeing or packing matches; they shall not be employed in any capacity in the manufacture of paints, colors or white lead; nor shall such children be employed in any capacity whatever in operating or assisting to operate any passenger or freight elevator; nor shall such children be employed in any capacity whatever in the manufacture of goods for immoral purposes; and no females under 16 years of age shall be employed in any capacity, where such employment compels them to remain standing constantly."

In New York, however, no such use was ever made of this section of the penal code, and apparently the first idea that its enforcement might be a good thing came from the factory inspectors in 1888. In their report for that year,¹ the section, as amended by Chapter 145 of the Laws of 1888, is printed, and attention called to the beneficial results that might follow its faithful enforcement. The same suggestion was repeated in their report for 1891,² but no practical result came of it, and the law has never been appealed to to stop the employment of children in factories where their lives, health, or morals were endangered.

The only other important law affecting child labor on the statute books at the time was the compulsory education law. As will be made clear in a later section, an effective compulsory education law, properly enforced, is about the best child labor law that has yet been devised.

The law in force at this time is contained in Chapter 421 of the Laws of 1874, as amended by Chapter 372

¹ N. Y. fact. insp. rep. 1888, p. 61.

² N. Y. fact. insp. rep. 1891, pp. 32-35.

of the Laws of 1876; it provides that all children between eight and fourteen years of age shall attend school at least fourteen weeks in each year, eight of these weeks at least to be consecutive; the employment of a child under fourteen at any business whatever during school hours is forbidden, unless the child has attended school at least fourteen weeks out of the fifty-two weeks next preceding the year of employment and presents a certificate so stating to the employer; for violation of this section a penalty of \$50 is imposed on the employer. The local school officers are required to enforce the law and make the necessary inspection of all manufacturing and other establishments where children are employed; employers are required to keep lists of all children between the ages of eight and fourteen employed by them, together with a certificate of school attendance for each child.

Provision is made in the compulsory education law and in Chapter 185 of the Laws of 1853 for truant schools in each city and incorporated village and for the detention of all habitual truants and children whose parents claim to be unable to control them.

These statutes by no means provide an ideal school attendance law. But it is very evident that a rigid enforcement of such a law would be a most serious obstacle in the way of the wholesale employment of children in factories.

As a matter of fact, this law with very rare exceptions was a dead letter throughout the state. The evidence is overwhelming. Statements and letters of school officers, testimony of those who had visited the factories, published reports of charitable organizations interested in the welfare of children, and the testimony of the children themselves, all go to show the almost

universal non-enforcement of the law, and the resulting swarm of ignorant and illiterate children of school age working in the factories of the state.

It is not our purpose to go into the evidence in detail at this point. The actual conditions and extent of child labor at this time will be described in a later chapter.

Numerous explanations were given for the non-effectiveness of the compulsory education law. Some of the foremost among these, taken mainly from statements of school officers, may be given as examples. A great many school officers call attention to defects in the law; the law is described as too general, clumsy and indefinite; they state that no provision is made for the expense involved in carrying it out, etc., etc. Another objection made was that it would be impossible to keep the unruly class of boys in school without employing an enormous force of officers and threatening the discipline of the schools, unless regular truant schools were provided, and this was said to be too expensive for many of the smaller villages. A few superintendents who were working earnestly to enforce the law were met by the indifference of the public, the occasional real need of the children's earnings for the support of the family, and the readiness of parents to make false statements as to the ages of their children. Many superintendents admitted that no efforts were being made to enforce the law, though some said they had tried and found it impossible. The facts of the case probably are that, owing to the desire of many parents for the earnings of their children and the indifference of the rest of the community, there was no strong public sentiment demanding the enforcement of the law, and the majority of school officers preferred to take the easy course and let matters go on as they were. A few places reported that the law

was quite effectively enforced, but those were places where there was no demand for child labor.

Whatever we may say as to the reasons, the fact stands out undisputed that the compulsory education law was a dead letter, so far as its effect on the labor of children in factories and elsewhere was concerned.

To sum up then the state of legislation in 1883: the labor of women in factories and elsewhere was unregulated, except for a law requiring seats for females in factories and stores; which law was a dead letter; child labor was regulated only by a few statutes of no great importance, and by a section of the penal code which was not enforced with respect to work in factories; the compulsory education law was a dead letter so far as the children who worked in factories were concerned; the employment of adult men in factories was wholly free from legislative influence, except for an unenforced and unenforceable eight-hour law. The real problem of factory legislation, the hours of labor of women and children, the prohibition of child labor under a certain age, with proper restrictions, educational and otherwise, above that age, the sanitary and moral conditions of factory employment, the safeguarding of life by guarding machinery and elevators and requiring fire escapes; these and other subjects of like nature had not been touched by the legislation of the state.

CHAPTER II

THE TENEMENT HOUSE CIGAR LAW

The importance of the tenement-house cigar law lies not so much in itself, for it was very short-lived, as in its bearing on subsequent legislation. The influence of the law and of the court decisions called out by it, in directing all later legislation regarding tenement-house work up to the present time, has been so important that its history must be traced with some attempt at completeness.

The law forbidding the manufacture of cigars and the preparation of tobacco in tenement-houses was the result of a demand from the organized cigar makers of the state, and the work of securing its enactment at Albany was done by the labor unions. The law was passed first in 1883. The movement began as far back as 1873. At the fourteenth annual session of the Cigar-Makers' International Union of America, held at Cleveland, Ohio, in September, 1881, the president, Mr. Adolph Strasser, made the following statement giving the history of the movement against tenement-house manufacture to date:¹

"Eight years have elapsed since the system was first exposed in public meetings, and the board of health requested to recognize them as a public nuisance, dangerous to the health and morals of the occupants. The whitewashing report of the board was published in the *Workingman's Advocate*, then the official journal of the Cigar-makers' International Union. The agitation was continued, and carried to the Senate of the United States. In the month of February, 1879, the Senate Committee on Finance adopted a bill to abolish the evil.

¹ McNeill, *The labor movement*, pp. 592-593.

It was carried through the committee of the whole by an unanimous vote, in a division of the Senate by a vote of 27 to 4, but ultimately defeated by a vote of 35 to 25. Defeated in the Senate of the United States, the bill was introduced as a sanitary measure in the Legislature of the State of New York, during the winter of 1880. It was carried through the committee, but defeated in the committee of the whole, by a vote of 49 to 40. The bill was again introduced in the Legislature, and defeated by a vote of 45 to 45. This is a brief history of the agitation to the fall of 1881."

The fight so far was carried on by the organized cigar makers, practically unaided by other organizations. The motives actuating the leaders of the Cigar-Makers' International Union were twofold. Under the tenement-house system, the manufacturer rented a tenement-house, and then sub-let the separate apartments to cigar makers, who lived there with their families, the whole family being engaged in the manufacture of cigars from tobacco furnished by the manufacturer. The manufacturer would not give work to any one who would not come and live in his house. The manufacturer thus made a double profit : from renting his apartments, and from the manufacture of cigars. One of the leaders of the movement at this time stated to the writer that "this was a terrible menace to the entire cigar making trade. With one or two exceptions all cigar manufacturers were unscrupulous and overbearing and had the cigar makers entirely in their power. The cigar maker had to do just so, or he would find himself turned out of his home to wander penniless on the street." This statement is borne out by the fact that during the great strike of the New York City cigar makers in 1877, over one thousand families who were making cigars in their tenements were dispossessed by the sheriff. In the ap-

pendix of George McNeill's "Labor movement," (p. 591), this statement is made : that

"The tenement-house system, the curse of the trade, had assumed gigantic proportions ; nearly four-fifths of the cigars made in New York City were made in tenement-houses."

There is abundant evidence to show that conditions in these tenement workshops were bad. Health was threatened by bad sanitation, moral conditions were bad, wages were low, and the evils of child and female labor, for long hours, day and night, prevailed in their worst forms. On the side of the public health the danger has probably been exaggerated, but that it was present to a considerable degree cannot be doubted. The cigar makers were of course interested in remedying these conditions, though the matter was not brought before the public strongly enough to arouse any widespread interest in the movement. A few doctors practicing on the East Side signed statements condemning the system, and these were printed in pamphlet form by the cigar makers' union and distributed among the members of the legislature.

The second and doubtless the stronger motive was the desire of the leaders of the Cigar-makers' International Union to control the trade. The presence of this motive may be detected in the two quotations given above, and it was frankly admitted to the writer by an officer of the union who was authority for the first of these quotations. The union could control the workers in the factories, in the matters of hours, of child and female labor, and to a certain degree of wages. The tenement-house workers were far more difficult to organize and control, both on account of the difficulty of keeping watch over them in their own homes, and also

on account of the strong hold which the manufacturer, by reason of his twofold position of landlord and employer, had over the tenement-house workers. The leaders of the union at this time were firmly opposed to tenement-house manufacture, and wished to see it abolished in order to get the cigar makers into the union and give the organization control of the trade. It should be stated, however, that a large number of the tenement-house cigar makers belonged to the union at this time, the clause which refuses membership to a tenement-house worker having been placed in the constitution of the Cigar-Makers' International Union some time after this. The statement was made in 1883, in a New York newspaper, that during the great strike of 1877 the tenement-house cigar makers continued at work while the factory workers went out, and that the former were thus instrumental in breaking the strike.¹ This statement is denied by officers of the cigar makers' union. The statement seems improbable also from the fact that over one thousand families who were making cigars in tenement-houses were dispossessed because they refused to work. It was estimated in 1883 that there were less than two thousand families thus engaged in the city;² from which fact it would appear that the majority at least of the tenement-house workers joined the strike. Nevertheless the fact remains that the tenement-house manufacture was considered by the officers of the union as a menace to the trade and to the cigar makers' organization.

The agitation for legislation forbidding the manufacture of cigars in tenement-houses was continued after

¹ N. Y. Tribune, March 14, 1883, p. 2.

² N. Y. Times, Jan. 30, 1884, p. 3.

the defeat of the bill before the New York legislature in 1881. A bill was introduced the next year which also failed. On September 12, 1882, the state Labor Party held its convention in Buffalo, and in the resolutions adopted the convention demanded the abolition by the legislature of tenement-house cigar manufacture. The bill was again introduced in the legislature of 1883, and after a vigorous fight between the cigar makers' union and the manufacturers was passed on March 12, 1883. The state Labor Party at this time had secured a good deal of political power at Albany through its influence on the various local constituencies represented by members of the legislature, and this law is only one of a number of laws successfully demanded by the party about this time.

The work in the interest of the bill was nearly all done by the Cigar-Makers' International Union, though they secured what assistance they could from other unions. The general public and the various philanthropic organizations took practically no interest in the matter. The Board of Health of New York City opposed the bill.¹ The union did its work along political lines, working throughout the state for the defeat of members of the legislature who were opposed, and working in the interests of those who favored the bill. The movement was led by Adolph Strasser, then a young man just rising into prominence, who had led the strike of the New York cigar makers in 1877 and been elected president of the Cigar Makers' International Union in September of the same year.

The important part of the law of 1883 is given below, as it is necessary to an understanding of the legal questions involved :

¹ See p. 22

LAWS OF 1883—CHAPTER 93

AN ACT to improve the public health in the city of New York by prohibiting the manufacture of cigars and preparation of tobacco in any form in the tenement-houses of said city.

SECTION 1. The manufacture of cigars or preparation of tobacco in any form, in any room or apartments which, in the city of New York, are used as dwellings, for the purpose of living, sleeping or doing any household work therein, is hereby prohibited.

§ 2. No part of any section of any floor in any tenement-house in the city of New York, in which the manufacture of cigars or the preparation of tobacco is carried on, shall be used for dwelling purposes.

Following sections (secs. 3-7) define the term "any section of any floor" as meaning any number of rooms extending in a contiguous line from the street to the rear of the house; exempt the first floor of a tenement-house, which is used as a tobacco store; require the regular city sanitary inspectors to report violations to a police magistrate; provide penalties for violation, etc. Section 8 provides that the law shall take effect on October 1, 1883.

Neither party gave up the fight after the passage of the law. The union prepared to see that the law was enforced, while the manufacturers laid their plans to contest its constitutionality in the courts. The first case in which the constitutionality of the law was questioned came in the spring of 1883, before the date set for the law to take effect. One Abraham Rosenthal had, previously to the passage of the law, rented five rooms in a tenement-house belonging to one Jacob Bloom, for the purpose of making cigars. On the passage of the law making the use of the rooms for that purpose illegal, Rosenthal brought suit to have his lease de-

clared void, on the ground that its value to him had been destroyed. Bloom demurred on the ground that the act was unconstitutional. Judge Donohue, in Special Term of the Supreme Court, in July, held that the law was constitutional and overruled the demurrer. The case was not appealed and attracted little attention, its importance being overshadowed by the later cases.

When the act went into effect on October 1, the cigar makers' union, under the leadership of Mr. Strasser, organized a corps of union detectives to discover and report violations, and a committee was in session at the union headquarters to hear reports and receive complaints. A number of violations were reported the first day, October 1, and complaints were made by the union to the Board of Health. The Board of Health, however, stated that they did not consider that they were given authority to enforce the law, since the sanitary inspectors were required to report violations to a police magistrate and not to the board. They accordingly did nothing in the matter. The Board of Health had been opposed to the bill from the beginning, and on January 29, 1883, while the bill was pending before the legislature, had passed a resolution stating that "it is the opinion of the board that the health of the tenement population is not jeopardized by the manufacture of cigars in such houses," and that this bill "is not a sanitary measure and has not the approval of this board."

A number of arrests were made, however, on complaints of members of Mr. Strasser's detective force, and the manufacturers determined to make one of them, that of David A. Paul, a test case to determine the con-

stitutionality of the law. The cigar makers also welcomed the chance to have the law tested by the courts. In the meantime the manufacturers decided to comply with the law until its constitutionality was decided, and there was very little disposition to violate or openly defy the law. The result was that the manufacture of cigars in tenement-houses ceased in New York City, and was transferred to Brooklyn and other points on Long Island. The statement was made that forty-three families were transferred to Brooklyn and Greenpoint on the first day of the enforcement of the law. Some of the tenement-house workers were transferred to factories in New York City, and a good many women and children were kept from working altogether. At the time when the law went into effect, it was estimated that there were 127 apartment houses in the city where cigars were manufactured, and that 1964 families, consisting of 7924 persons, were engaged in the industry.¹

Coming back to the case before the courts; Paul was arrested on October 1, and the evidence produced was such as to leave no doubt that he was guilty of violating section 1 of the law, as charged. Both sides determined to make the case a test of the constitutionality of the law, and able counsel were employed. Paul's application for a writ of *habeas corpus*, on the ground of the unconstitutionality of the law, was denied by the lower courts, and the case came to the Court of Appeals, where it was argued on December 6, 1883. (94 N. Y. 497). The points made against the law were: first, that it violated the state constitution in authorizing an unwarranted interference with personal freedom and private property; second, that it violated the federal constitution by impairing the obligation of contracts;

¹ New York Times. Jan. 30, 1884, p. 3.

and third, that it was a local act and embraced more than one subject.

The court, however, based its finding solely on the point of the discrepancy between the title and the subject matter of the law. The opinion, which is by Judge Francis M. Finch, points out that the act relates to two subjects, neither of which is described by the title. The title refers to the *prohibition of the manufacture of cigars*, etc., in *tenement-houses*, which are a distinct class of houses, recognized and defined by law. But section 1 of the law makes the prohibition apply to *all dwellings*, so far as the manufacture in rooms used for living purposes is concerned. The section is therefore broader than the title of the act and violates Article 3, section 16 of the state constitution, which declares that no private or local bill "shall embrace more than one subject, and that shall be expressed in the title." This leaves section 2 which prohibits, not the *manufacture of cigars*, but the *use for dwelling purposes* of rooms in a tenement-house where the manufacture of cigars, etc., is carried on. This of course is not referred to at all in the title, and is a wholly distinct offense from that created in section 1. The constitutionality of section 2, however, was not passed on by the court, since the defendant was not charged with violating it. The court therefore found section 1 unconstitutional on account of a technical error in the title, and left the rest of the act on the statute books, while the real merits of the question remained as unsettled as before. This decision was handed down January 29, 1884.

Obviously such an outcome would not be regarded by the friends of the law as a final settlement of the matter. When the legislature met the following year, the bill, with its defective title corrected, and with cer-

tain other amendments, was reintroduced and became a law on May 12, 1884. The important sections of this law are as follows :

LAWS OF 1884—CHAPTER 272

AN ACT to improve the public health by prohibiting the manufacture of cigars and preparation of tobacco in any form, in tenement-houses in certain cases, and regulating the use of tenement-houses in certain cases.

Section 1. The manufacture of cigars or preparation of tobacco in any form on any floor, or in any part of any floor in any tenement-house is hereby prohibited if such floor is by any person occupied as a home or residence for the purpose of living, sleeping, cooking or doing any household work therein.

§ 2. Any house, building or portion thereof occupied as the home or residence of more than three families, living independently of one another, and doing their cooking on the premises, is a tenement-house within the meaning of this act.

The following sections (secs. 3, 4, 5, and 7) are practically identical with sections 4-7 of the act of 1881; that is, they exempt the first floor of a tenement-house which is used as a tobacco store, require the regular city sanitary inspectors to report violations to a police magistrate, provide penalties for violation, etc. Section 6 states that the act applies only to cities having over 500,000 inhabitants; and section 8 provides that the law shall take effect immediately.

It will be noticed that the principal changes which have been made in the law are: first, the title has been corrected so as to properly describe the contents of the act; second, the term "tenement-house" is used both in the title and in the body of the act, and the exact meaning in which it is used is defined; third, section 2 of the original law, which, while not declared unconstitutional, was still left in an exceedingly precarious

condition by the court, has been stricken out so that the act now relates to only one subject, which is the one described in the title; and fourth, the law is a general law instead of a local law, as in the case of the act of 1883, although the limitation to cities of over 500,000 inhabitants restricts its application to New York City and Brooklyn.

This act was passed on May 12 and took effect immediately, and on May 14 one Peter Jacobs was arrested for violating its provisions. The course of events was much the same as in the previous case. The facts, as established, clearly showed a violation of the law. Jacobs applied for a writ of *habeas corpus*, and the case finally came before the Court of Appeals on the sole question of the constitutionality of the law. The manufacturers were once more determined to have the law declared unconstitutional, and the case was vigorously pushed by able counsel. On the side of the cigar makers, however, matters did not go so well. The union retained Senator Roscoe Conkling to defend the law, paying him a retainer of \$1000. When the case came to trial, however, Conkling did not appear and the law was defended only by the district attorney, whose defense was merely perfunctory. Two statements have been made to the writer regarding Conkling's action; the first by a prominent New York City authority on labor legislation, to the effect that he merely pocketed his retainer and did nothing; the other statement was, that before the case came to trial Conkling demanded such an exorbitant fee for his services that the union was unable to pay, and he accordingly dropped the case; this statement was made by one of the union leaders in this fight. Mr. Adolph Strasser, in a letter to the writer, states that "Mr. Conkling claimed that he had a peremptory order to appear in the

Bell Telephone case at Hartford; and requested the district attorney of New York City to let the case go over. The district attorney refused to comply; claiming that he had to vacate office on January 1, 1885."

Whatever the reasons for Mr. Conkling's action may have been, the result was that the case practically went by default, and the leaders of the union have always had a feeling of bitterness over the matter.

The case was argued before the Court of Appeals on December 17, 1884. (98 N. Y. 98). The points made by counsel against the law were: first, that it authorized an interference with personal freedom and private property in violation of section 6, Article 1, of the constitution of the state; second, that it could not be justified as a proper exercise of the police power of the legislature, since it did not concern the public health; third, that it was in contravention of section 10, Article 1, of the constitution of the United States in that it impaired the obligation of contracts; two or three other points were made against the law, but they do not need to be discussed here. The judgment of the court was handed down on January 20, 1885, and pretty nearly coincides with the brief of counsel against the law. The court holds that the law, while ostensibly for the public health, does not in fact have any relation to the public health, and moreover interferes with personal liberty and destroys private property. Accordingly the law is declared to be unconstitutional.

With this unmistakable decision the cigar makers' union gave up the fight to abolish tenement-house manufacture of cigars through legislation. It is interesting to note at this point, however, that the tenement-house cigar industry, in the form in which it was so violently opposed at this time, has about disappeared from New York City. By this is meant that the sys-

tem, whereby the manufacturer occupies the threefold position of landlord, employer, and owner of the tobacco, has passed away. It is said that there are at present only two such tenement-house factories in New York City.

The importance of this decision to the history of factory legislation lies in the fact that it has given the deathblow to all attempts to fight tenement-house evils by legislative prohibition of certain kinds of tenement-house manufacture. In the face of such a sweeping decision from the highest court of the state, no one during the past twenty years has had the courage to prepare a law forbidding outright any kind of manufacture in tenement-houses, although such prohibition is believed by many to be the only effective solution of the problem of tenement-house manufacture. All the efforts which have since been made toward a solution have had to approach the problem indirectly, under cover of police protection in the interests of the public health.

It is believed by many of those who are most interested and have been most active in the work of recent factory legislation, that the time is about ripe to make another attempt along the line of the laws of 1883 and 1884. Recent judicial decisions throughout the United States seem to show a reaction against the former position, and a tendency to allow greater scope in the exercise of the police power of the state. There have been a number of decisions affirming the constitutionality of laws limiting the freedom of adults in the interest of public health. This is a new and somewhat extreme position, but those who are most interested believe that the time has come to do away with all tenement manufacture in cities of the first class, and it is said that within three or four years some attempt along this line will be made, and that it will succeed.

CHAPTER III

THE STATE BUREAU OF LABOR STATISTICS

Another important law in the movement which we are tracing is the law of 1883 which created the state bureau of labor statistics. The history of this law is bound up with the general movement for labor legislation carried on by the organized laborers of the state, and leading up to the enactment of the first factory act and other important laws in 1886. The account of this movement will therefore be deferred to the discussion of the factory act of 1886, and only a very brief account of the events relating especially to the bureau of labor statistics will be given at this point.

The organized laborers of the state were agitating for a bureau of labor statistics, along with a number of other demands, as early as 1864. But this was not their chief issue, and the labor organizations were not very powerful in politics for some dozen years following that date. About 1877 the laborers' organization, known as the Workingmen's Assembly, began to wield some real political power, and from that time an energetic fight was carried on throughout the state to secure certain definite pieces of legislation, one of them being the creation of a bureau of labor statistics. The state Labor Party, at its convention held in Buffalo, September 12, 1882, made this one of its demands. The movement was wholly the work of the organized laborers of the state. Their idea was to have an official bureau which should furnish the laborers with data as a basis for their appeals to the public in behalf of the various legislative measures which they wished to put through. The bill was passed without much serious opposition on May 4, 1883, being Chapter 356 of the Laws of 1883. It created

the office of commissioner of labor statistics, to be filled by appointment by the governor. The duties of the office are to collect and present annually to the legislature statistics "relating to all departments of labor in the state, especially in relation to the commercial, industrial, social, and sanitary conditions of workmen, and to the productive industries of the state." The commissioner is given power to summon witnesses and examine them under oath. The law was weak in that it gave the commissioner no authority to enter factories and other premises against the owner's will, nor power to require answers to questions, either written or oral. After being urged each year by the commissioner, the legislature finally supplied these deficiencies in 1886, by passing an act giving the commissioner power to enter premises and compel truthful answers to questions, and providing penalties for refusal to admit the commissioner to any premises or to answer truthfully any question asked by him.

The securing of this piece of legislation was regarded as a real triumph by the workingmen's organization. The actual working of the bureau, however, has been a disappointment. The first commissioner was Charles F. Peck, a friend of lieutenant-governor Hill and not a laboring man at all. It had been expected by the Workingmen's Assembly that the office would go to some labor representative, and a number of names were presented to the governor with the request that the new commissioner be appointed from the list. Prominent among the candidates put forward was George Blair, who was president of the political branch of the Workingmen's Assembly, and had directed the fight in behalf of the bill creating the bureau. But the real reason for regarding the work of the bureau

as a failure is the fact that the information published each year is practically unread except by students. The manufacturers, laboring men, business men, and the general public rarely read the reports of the commissioner of labor statistics, and it was just these classes that the organization wished particularly to reach. Without attempting to go into any criticism of the work of the bureau, it may be said that this result seems inevitable, owing both to the subjects selected for investigation, and to the method of presentation in the annual reports, which usually give voluminous tables of statistics, but with so little attempt at careful analysis and summary as to make the figures practically unintelligible except to the student.¹ The busy man is not going to wade through hundreds of pages of figures to see whether or not they support certain claims made by organized labor, no matter how favorably he may be inclined to these claims on general grounds. Another point of weakness in the work of the bureau is its extremely partisan character. It has been devoted almost exclusively to the interests of *organized* labor. The statistical matter presented relates only to organized labor, and so does not truthfully represent the condition of all the laborers of the state, while the whole discussion and treatment is from this *ex parte* standpoint. The organized laborers probably do not consider this a weakness, but there can be no doubt that this fact has had something to do with the lack of general interest in the reports of the bureau and the lack of respect for them which have been so disappointing to the men who worked for its creation.

The bureau does, however, furnish a certain official mouthpiece for the organized labor of the state, and

¹ Recent reports have shown great improvement in this respect.

during the first few years of its existence, before the establishment of the factory inspector's office, it furnishes some valuable material bearing upon the movement for factory legislation. The first report, covering the year 1883, was brief and of an introductory nature; the only subject investigated was that of the system of contract labor in use in the penal institutions of the state, against which the workingmen's party had been waging a long and bitter fight, which lasted till 1886. The bulk of the second report, that for the year 1884, is devoted to an investigation of child labor in the state, a subject which was taken up at the request of the Trades Assembly of the state as expressed in a resolution adopted at their annual meeting held in Albany in January, 1884. The subject of child labor is apt to be a popular one with state labor bureaus and with organized labor in general. The result of this investigation was of material assistance in the fight for a child labor law which led to the factory act of 1886, and the facts gathered furnish some valuable evidence regarding conditions at the time, which will be made use of in later pages of this paper. One chapter of the report of 1885 is devoted to working women, and gives facts regarding their wages and the conditions under which they work and live. While not so valuable as the investigation of child labor made during the previous year, there is still much useful material in this chapter. The rest of the report deals with matters affecting the interests of organized labor, but having no special bearing on factory legislation. The next two or three reports contain very little information relating to our subject, and after 1886, when the first report of the factory inspector appeared, the bureau of labor statistics ceases to furnish more than an occasional piece of indirect testimony.

CHAPTER IV

THE FIRST FACTORY ACT

The movement for factory legislation in New York has come, in the main, from two sources: first, the organized laborers of the state, and secondly, a number of charitable and philanthropic organizations located for the most part in New York City, and devoted to the interests of children and women. Throughout the period embraced in this history the trade unionists of the state have had a central organization, known as the Workingmen's Assembly, or the Trades Assembly, of the state of New York. Its purpose has been to voice the political demands of the organized laborers of the state, and to concentrate their political power in order to influence legislation at Albany. Through this body the organized laborers have worked for factory legislation.

Numerous charitable organizations have from time to time taken up the subject of factory legislation in the interest of women and children, the most important ones being the Children's Aid Society, the New York Society for the Prevention of Cruelty to Children, the New York State Medical Society, the Working-Women's Association, and the Consumers' League. Of late years influential work has been done by the numerous settlements in New York City.

The labor unions were first in the field, and had been at work trying to secure some kind of child labor law for several years before the matter was taken up by others. Their early work, however, was not very effective, both on account of the weakness of their or-

ganization and also because they were at the same time demanding the enactment of several other laws which they considered of greater importance than child labor legislation. Nevertheless, this early work counted for something, and when the other interests took up the movement in later years they found the way paved for them in advance.

The laborers have generally lacked the intelligence, and the means to employ legal talent, necessary to draw up good bills. This deficiency has frequently been supplied by the other party, which has drafted the carefully worded bills, which were then supported by the laborers' organization. On the other hand, the real political power necessary to force the bills through the legislature has very often come from the political organization of the laborers.

The general public has probably not realized the important part played by the trade unions in securing the New York factory law, partly on account of the fact, already mentioned, that the other organizations have come in often after the hard initial work of the movement had been done, and have then drafted the bills and led in the finish of the fight; partly also on account of a difference in the methods of work pursued by the labor organizations on the one side and the philanthropists and reformers on the other. The work of the latter is a public work; it is supported by the press, either actively or at least to the extent of publishing its appeals and reporting its meetings; the influence which the reformer tries to bring to bear upon the legislature is the force of an aroused public sentiment. The public cannot help being aware of such a movement, and when the bill is passed people naturally give the credit to those who have been in the public eye.

The labor unions, on the other hand, work more quietly. The press devotes little attention to them, and often refuses to print their matter when requested to do so. They work among their own members and among the politicians rather than with the general public. The influence they wield at Albany is a political influence. It is a matter of votes. If a member of the legislature can be shown that the organized laborers have the power to defeat him in his district, he will listen to their demands; and when the party leaders find that this is the case in a good many districts, they begin to pay some attention to the laboring men's proposals for legislation. This is an effective kind of work, but it does not attract the notice of the public as the other method does.

What has been said in this chapter thus far must be understood, of course, only as a general characterization of the movement for factory legislation; there are numerous exceptions. Some measures are of interest to the laborers alone and have been secured by their efforts unaided. Other measures are advocated vigorously by philanthropic agencies, which command at best only a lukewarm support from organized labor. Statutes designed in the interest of the adult workers are apt to be the work of the laborers themselves. Where the proposed measure is for the sake of women and children, both forces join hands, the laborers, however, often taking the subordinate place. Of late years the work of the trade unionists has been growing of relatively less importance, and the important child labor laws of 1903 were secured by philanthropic agencies practically unaided by organized labor. Both parties have, however, almost always worked in harmony, and while measures advocated by one party have sometimes re-

ceived only nominal support from the other, there have been no important cases in which they have antagonized each other.

With this general introduction, we come to the more detailed account of the movement which led to the first factory act in 1886.

As early as 1864 the organized laborers of New York were agitating for an eight-hour law, the repeal of the conspiracy law, the abolition of contract labor in prisons, the establishment of a bureau of labor statistics, and the prohibition of child labor. The movement was mainly confined to New York City. The two leading issues for a number of years were the eight-hour law and the repeal of the conspiracy law. On account of the war, labor was scarce and wages high, and the labor organizations of the time were concerned less with bettering their industrial condition, and more with politics. The evils of child and female labor were present and more or less recognized, but this matter was not made an issue of any importance till 1869. In that year the subject of child and female labor was taken up in the convention of the laboring men of the state. The *New York Tribune* for October 6, 1869, has an editorial strongly favoring legislation along this line; attention is called to the factory legislation of England and to the law of Massachusetts, which forbade labor of children under ten years of age and applied educational restrictions to those between ten and fifteen.

The laboring men's convention of 1869 drafted a bill, which was presented to the legislature and for six years failed to receive even the consideration of the committee.

In the meantime, the question of child labor had been taken up by the Children's Aid Society of New York City. Mr. Charles E. Whitehead, a member of the

Board of Trustees, was especially interested, and in 1871 drafted a bill in the interests of factory children. This bill was presented to the legislature at Albany, and for four years was vigorously pushed by Mr. Whitehead and the Children's Aid Society together with a number of influential citizens of New York City, but without success owing to the strong opposition from manufacturers and merchants. The *New York Times*, in an editorial on January 26, 1873, warmly supports the bill. The main features of this bill were as follows: first, the prohibition of the labor of children under ten years of age in factories, and of all under twelve who were unable to read intelligently, a penalty of five dollars per day being imposed on the employer who violated this section; second, limitation of the hours of labor of children under sixteen to sixty per week; third, prohibition of the labor of children under sixteen who had not attended school for three months, or a half day or a night school for six months; a certificate of school attendance must be presented to the employer; the penalty for violation of this section was fifty dollars. Certain exceptions were allowed in favor of poor families who were dependent on the earnings of their children. Following sections secured certain sanitary regulations, and provided for the appointment of an "inspector of factory children" to enforce the law.

For three years this bill failed to receive favorable consideration. In 1874, however, the Children's Aid Society joined forces with those who were working at that time to secure the passage of a compulsory school law, the result being the successful passage of the education bill, including a section (section 2) which made it illegal for any person to employ a child under the age of fourteen years in any business whatever during

school hours, unless the child had attended a school where the common branches were taught during at least fourteen weeks of the year next preceding each and every year of employment. At the time of entering employment the child was required to deliver to the employer a certificate from the proper school officer certifying that the requirement of school attendance had been complied with. Section 3 of the same law placed the enforcement in the hands of the local school officers, who were required to visit twice a year, in September and February, all factories where children were employed, and report violations of the law to the treasurer or chief fiscal officer of the place. Manufacturers were required to keep a list of all children employed by them between the ages of eight and fourteen years, together with their certificates of school attendance. This law is Chapter 421 of the Laws of 1874. This partial success ended the efforts of the Children's Aid Society in behalf of a factory law regulating the labor of children.

The evidence shows that from this time on the child labor evil was growing in the factories in the state, and that it was slowly forcing itself upon the attention of those people who were especially interested in philanthropic work among children. At the annual meeting of the Children's Aid Society of New York City, held November 23, 1880, the secretary reported :

"The great hindrance to our labors last year, as for so many years, have been the effects of the tenement-house overcrowding on the youth of the city and the lack of execution of the compulsory law. To this is added now the steady swallowing up by the factories of the children of the city."

McNeil, in "The labor movement," reports a some-

what amusing instance of agitation by the children in their own behalf.¹ In the year 1880, he says:

"The strike fever spread among the boys, and at Cohoes, N. Y., two hundred boys employed in the cotton-mills struck, many of them being under twelve years of age. They had banners inscribed 'United we stand, divided we fall,' 'Good news from Fall River,' 'Ours is a hard fate—all work and no time to play in God's sunshine,' 'Pity us poor children who have to work,' etc."

It is a little hard to decide whether to call this incident amusing or pathetic.

The laboring men's organization, which went under the name of the Workingmen's Assembly, was young and weak when it made its first attempt to enact a child labor law. The Workingmen's Assembly was organized in 1865, growing out of a successful legislative campaign against the Hastings strike bill in the legislature of 1864. This was the first time that the various local trade unions had come together in anything like a state organization for a common purpose. The aim of the Workingmen's Assembly was to unite the organized laborers of the state for the purpose of exercising their collective political influence upon legislation at Albany. The organization kept growing in strength, and about 1877 the laboring men began to realize that they had some political power. The following year a body was organized known as the Political Branch of the Workingmen's Assembly of the State of New York. The president was George Blair of New York City, who had been a prominent leader in the political work of the laboring men since the Civil War. This body set to work in earnest to secure the legislation it desired, and a definite political program was put into execution.

¹ McNeil, *The labor movement*, p. 116.

The fight was made on four main issues, namely: the abolition of contract labor in prisons, the establishment of a board of arbitration, the establishment of a bureau of labor statistics, and the abolition of child labor. Closely connected with the latter was the question of female labor, but that held a subordinate position during the movement.

Reference has already been made to the general way in which the laboring men have gone to work to secure their legislative demands. The work was done along political lines, and was directed with a view to influencing the election of members to the legislature and to securing their votes on labor measures when elected. The workingmen did not start an independent political "labor party" and try to elect their own party representatives to the legislature. What they did was to pick out those members of the legislature who were most hostile to their demands and to concentrate the fight in their districts. In like manner, when a member had shown himself favorable to the workingmen, they would organize to assist him in his campaign for reelection in his own district. Every year the labor organizations held a state convention, at which the "record" of each member of the legislature was carefully scrutinized, and the decision made whether to support him or not. Appeals would then be made to the workingmen and others in the several districts to vote for the members who had helped them and against those who had opposed them. Wherever possible, candidates were made to give pledges before election to support the measures desired by the workingmen's organization, and a record of these pledges was kept and compared with the action of the candidates when elected to the legislature.

During the session of the legislature the Workingmen's Assembly was no less active. It was represented at Albany through its legislative committee, which did all in its power, through the ordinary lobbying methods, to secure the passage of the bills which had been decided upon as the legislative program at the last annual convention of the Workingmen's Assembly. The legislative committee also kept track of the attitude of the individual members of the legislature on each measure in which the laboring men were interested, and issued bulletins reporting the progress of their bills and telling how the individual members had voted on them. At the annual convention the committee reported on the work of the last legislature, and presented the "records" of the members on all bills in which the Assembly was interested.

As the laboring men's organization grew in strength this work began to tell, and candidates for the legislature in certain districts began to find that they must take account of the vote controlled by the workingmen. In 1880 twenty men were sent to the legislature who had given pledges to support the demands of the labor party. The Workingmen's Assembly thus came to be recognized as a force in state politics; their friendship was courted by Republicans and Democrats and, to a certain degree, they came to hold the balance of power. When this point was reached they began to gain the ear of party leaders, and the labor bills began to be enacted.

The motives which have actuated organized laborers in their fight against child labor and for the restriction of the labor of women and minors are of course not wholly, nor mainly, disinterested. The laboring man, as a man, has about the same altruistic interest in all

that tends to the welfare of children and women as any other member of society, no more and no less. He is moved, just as any one else is, by the thought of little children being deprived of their fair chance in life through long hours of labor at a tender age ; he sympathizes with the suffering and hardship undergone by the female employees in factories and stores. But there is no reason to believe that these things appeal to him any more strongly than to the average citizen. The motives which have made the laboring man a peculiarly zealous advocate of factory legislation in the interests of women and children are selfish ones. Summed up in a single sentence, his idea is to have the labor of children and women prohibited or restricted in order that there may be more work and better pay for himself. He sees, or thinks he sees, that the factories are being filled up with children who, with the aid of more and more perfect machinery, are doing the work that formerly required the strength and skill of the adult worker. In the same way women are believed to be displacing men. In the meantime, the man finds it harder and harder to get work. A sort of "wage fund theory," or more exactly a "work fund theory," is very generally found underlying the arguments of the workmen on this subject. It is sometimes put as naively as this : There is a certain amount of work to be done ; the entrance of women and children into the field of labor at a lower wage must force out just so much adult male labor or drive the men to ruinous competition with women and children and with each other.

The workingman is interested, not only in the absolute prohibition of child labor under a certain age, but also in all the restrictions, educational, sanitary, etc., which may be placed upon the labor of minors and

women. If women are forbidden to work more than sixty hours a week, the employer who wants his plant to run sixty-six hours must employ men. If expensive sanitary arrangements and toilet facilities are required in places where women are employed, the manufacturer who hires only a few women can better afford to replace them with men. If the labor of minors is surrounded with numerous troublesome requirements of school certificates, registers, evidence of age, posting of notices of hours of labor, etc., employers will save themselves annoyance by refusing to hire any one below the specified age. All this is not the mere speculation of the laboring man. It has been verified by actual experience under the factory law. The workingman therefore advocates legislation that will prevent his work being taken away from him by women and children.

In England the movement for the restriction of the hours of labor of women and children was favored by the workingmen in the hope that their own hours of labor would be shortened thereby. This motive may possibly have been in the minds of the New York workingmen, but it has been relatively unimportant, if it has existed at all. This result would be brought about, of course, only in those establishments in which the work of men was dependent on that of women or children, so that when the latter stopped work the factory would have to shut down. There are not many trades interlocked in this way, which are organized. A good example of an establishment in which adult and male labor is dependent on child and female labor is the department store. But the workers in the department store are rarely organized. Again, even in factories where the different classes of labor are interdependent, it has not been found difficult to arrange a system of

relays by which the plant can be kept running any length of time without working any individual employee more than the legal number of hours.

It must not be supposed that during this movement of the organized laborers of the state the question of child labor was by any means the leading issue. The matter of child labor was more or less of a local problem. Utica, Syracuse, Cohoes, Troy, and other cities in the Mohawk and upper Hudson valleys employed a great many children. Outside of these places, and New York and Brooklyn, there was no very great interest in child labor. And in New York and Brooklyn the employment of children was not so important relatively among labor problems as in the smaller cities. On the other hand, the demand for the revision of the system of labor in prisons, and the establishment of a board of arbitration and mediation for labor disputes, together with the demand for a bureau of labor statistics, were issues in which the laboring men of the whole state were interested.

As a matter of fact, although the abolition of child labor was demanded from year to year by the Workingmen's Assembly of the state, no really intelligent and effective work along that particular line was done until the matter was taken up in 1882, by the New York Society for the Prevention of Cruelty to Children and the New York State Medical Society. In this year a bill was drawn up by President Gerry of the former society, and Dr. Abraham Jacobi, President of the state Medical Society. The main provisions of this bill were as follows: First, the employment of any child under the age of fourteen in any factory was forbidden, unless the child had been first examined by a physician who should certify in writing that the child was free from

certain specified diseases and was in proper physical condition for factory work ; second, no child over the age of fourteen years was to be employed by any manufacturing corporation for more than ten hours a day, or in mining, glass work, rag sorting, employment on mercury, lead, arsenic, iron or brick works, or in any match factory ; third, no such child was to be employed in the manufacture of cigars or preparation of tobacco in any apartments used for living purposes in cities, nor in any occupation involving the use of dangerous machinery ; fourth, the violation of the act was made a misdemeanor. This bill was introduced in the Senate and advocated by both societies. It passed the Senate, apparently without serious opposition, and it seems probable that it would have passed the Assembly except that the session closed before it was reached.

In 1883 the effort was renewed by the Society for the Prevention of Cruelty to Children. Several bills were introduced in the legislature that year. It will not be necessary to describe these bills in detail. The main provisions involved were : the prohibition of labor of children under fourteen years of age in factories : the restriction of the hours of labor of children under sixteen and of women to ten hours a day ; the requirement of a certain amount of school attendance for children employed between the ages of fourteen and sixteen ; and the appointment of a factory inspector to enforce the act. As in the previous year, the State Medical Society and the Society for the Prevention of Cruelty to Children worked together for the passage of one or more of these bills. By this year, however, the factory interests of the state, which would seem to have been caught napping on the previous year, had become aroused, and all the factory bills were opposed earnestly

and bitterly. It was claimed that the manufacturing industries of the state would be utterly unable to go on without the work of children, since adult labor could not be obtained at profitable wages. Another argument put forward was that many families were dependent upon the earnings of small children. All of the bills were defeated.

During these two years there had not been much co-operation between the philanthropic societies interested and the Workingmen's Assembly of the state, in behalf of factory laws. In 1884, however, the Workingmen's Assembly, which had been steadily gaining in political power at Albany, joined forces with the Society for the Prevention of Cruelty to Children. A number of factory bills were before the legislature in that year, the leading one being drafted by Mr. Gerry, and being cordially supported by the Workingmen's Assembly. This bill prohibited the labor of children under fourteen years of age in any manufacturing establishment; every child between the ages of fourteen and eighteen had to be provided with an affidavit from its parent or guardian stating age and place of birth; no child under the age of eighteen was to be employed without a physician's certificate stating that it was free from certain specified diseases and in proper physical condition to do the work contemplated; no child under sixteen was to be employed at dangerous machinery or in certain specified dangerous occupations,¹ or in any place not properly lighted and ventilated; no minor under the age of twenty-one was to be employed for more than ten hours a day or sixty hours a week, or between the hours of twelve noon and one in the afternoon; the enforce-

¹ See list of occupations in the bill of 1882, p. 40.

ment of the act was put in the hands of a factory inspector and two assistants to be appointed by the state board of health; and officers of "any duly incorporated society for the prevention of cruelty to children" were also authorized to enter and inspect the premises where children were employed.

A number of other bills were introduced by the manufacturing interests, who worked to have them substituted for the bill favored by the Society and the Workingmen's Assembly. These bills were either so framed as to be unenforceable and wholly harmless, or contained provisions which would render them unconstitutional. Mr. Gerry's bill passed the Senate successfully, but on its final passage in the Assembly it was denounced as too radical, and another bill substituted and passed by a vote of 81 to 21. This substituted bill provided that no minor under eighteen years of age, and no woman under twenty-one, should be employed in a manufacturing establishment for more than sixty hours a week, unless for the purpose of making necessary repairs; the labor of children under thirteen years of age in factories was forbidden; the violation of the act was made punishable by fine, but was not made a misdemeanor; provision was made for the appointment of a factory inspector to enforce the act, reporting to the bureau of labor statistics. The substitution of this bill for the one drafted by Mr. Gerry brought about a clash between the Society for the Prevention of Cruelty to Children and the Workingmen's Assembly. The Society claimed that the substituted bill was utterly worthless and, while declining to oppose it, refused to have anything further to do with the matter. The leaders of the Workingmen's Assembly, however, believed that the bill was the best that could

be passed at that session and while not satisfactory was still better than nothing. They accordingly urged the passage of the bill, hoping to be able to strengthen it in coming years. This substituted bill, however, was killed in the Senate. Other factory bills introduced in the session of 1884 met the same fate.

Again in 1885 bills were introduced by the Society for the Prevention of Cruelty to Children and the Workingmen's Assembly working in co-operation. The bills were similar to those introduced the year before, and again failed to receive favorable consideration.

During the years from 1882 to 1885 the movement for some sort of law regulating the employment of children in factories was steadily growing in strength. The political power of the Workingmen's Assembly was growing year by year, and co-operation between the laboring men and the philanthropic organizations interested was becoming closer and more intelligent. In December, 1885, Governor Hill wrote to Mr. Gerry asking for his views on the question of child labor legislation, in order that he might embody them in his message to the legislature. His message, when presented, strongly urged the necessity of some regulation of child labor in factories.

The movement received material assistance from the work of the bureau of labor statistics in 1884. During that year the whole time of the bureau was devoted to an investigation of the subject of child labor in the state. This was the second year of the existence of the bureau, and in view of the limited means at the disposal of the commissioner and the limited authority given him by the legislature, this study of child labor is an excellent piece of work. Much valuable testimony was gathered showing the prevalence and evil

effects of the employment of young children in the factories of the state ; and this testimony, together with the conclusions of the commissioner, was made public in the report for 1884, issued in January, 1885.¹ This work must be placed to the credit of the organized laborers of the state, since the bureau of labor statistics was to a certain degree their official mouthpiece and this particular investigation was undertaken in response to a resolution of the state Trades Assembly passed at its annual meeting in January, 1884.

In 1886 substantially the same bill which had been drafted by Mr. Gerry and pushed by the Society for the Prevention of Cruelty to Children and the Workingmen's Assembly in 1884 and 1885 was again introduced, and after long discussion and debate the legislature finally passed a bill embodying the main demands of the Society and the laboring men. The law was passed in May, 1886, being Chapter 409 of the Laws of 1886. The law as passed differed in many important respects from the bill first advocated, a number of points being yielded to its opponents. The age limit for the employment of children was lowered from fourteen to thirteen years ; the requirement of affidavits, records, etc., was made to apply to children between thirteen and sixteen years of age, instead of to those between fourteen and eighteen as in the original bill ; the restriction of hours of labor of minors to ten hours a day was cut out of the original bill, and the law merely restricts their hours to sixty a week, with the further condition that this restriction shall not interfere with the making of necessary repairs. The bill as originally drafted and introduced provided for a physician's certificate for children

¹ The evidence of this report is discussed in the chapter on child labor, see chap. IX.

under the age of eighteen years, and forbade the employment of children under sixteen in the use of dangerous machinery or in certain dangerous occupations, or in any place not properly lighted or ventilated or furnished with proper fire escapes. These provisions were all cut out before the final passage of the law. The clause giving authority to the Society for the Prevention of Cruelty to Children to assist in the enforcement of the law was stricken out, at the request of Mr. Gerry and the Society.

Throughout the agitation for a factory law, all efforts had been vigorously opposed by the manufacturers of the state, who were represented by strong lobbies at Albany whenever factory bills were before the legislative committees. They argued that profits would be cut down, business ruined, and industries driven out of the state. They threatened personally to take their own factories out of the state if the bills were passed, and it was this argument more than any other which proved fatal from year to year. The other argument, namely, that hundreds of poor families were dependent on the earnings of young children, was probably not urged wholly in good faith.

The enactment of the factory law of 1886 marks the beginning of real factory legislation. Nearly all subsequent legislation has been in the form of amendments to this first law. On account of its importance as being the first act on the subject, and in order to make clear the course of legislation in the following years, the full text of the law is given in the Appendix.¹

The main points of the law may be here summarized, as follows :

¹See Appendix.

Section 1. No minor under eighteen years of age and no woman under twenty-one to be employed in a factory for more than sixty hours per week, unless for the purpose of making necessary repairs.

Section 2. The employment of children under thirteen years of age in factories is forbidden. Register of names of all children under sixteen to be kept. Certificate stating age and birthplace of every child under sixteen, verified by parent or guardian, or by the child itself, to be filed. Register and certificates to be kept by employer, and produced when demanded by proper inspector.

Section 3. Notice of daily hours of labor to be posted in every room where women under twenty-one or minors under eighteen are employed. List of names and ages of children under sixteen to be posted where they are employed.

Section 4. Penalty for violation of act: a fine of from fifty to one hundred dollars, or, in default of payment, from thirty to ninety days' imprisonment.

Section 5. Act not to apply to establishments employing less than five persons, except in cities.

Section 6. A factory inspector and assistant to be appointed by the governor, with power to visit and inspect all factories, who shall report annually to the bureau of labor statistics, and shall enforce this act.

Section 7. Provision for expenses of factory inspector and assistant, not to exceed \$2500 in any year.

Section 8. Inconsistent acts repealed.

Section 9. Act to take effect on July 4, 1886.

CHAPTER V

THE EVOLUTION OF THE FACTORY LAW

1887-1902

Introductory.—The movement for factory legislation has been traced up to the passage of the first factory act in 1886. The factory law as it stands on the statute books to-day has developed by a process of evolution from this first law. The legislation from 1886 to 1897 took the form of a series of amendments to Chapter 409 of the Laws of 1886. In 1897 the whole body of labor laws was consolidated into a single chapter known as the labor law, of which Article VI contains most of the factory laws. Legislation since then has been enacted as amending that article. Throughout the eighteen years from 1886 to the present time, the factory law has been amended on the average about every other year. It is the object of this chapter to trace the history of the present factory law as it has grown up by means of these successive amendments. Many of the amendments, of course, have been of relatively slight importance, and it will be unnecessary to spend much time on those that involve only technicalities and matters of administrative detail.

The Act of 1887.—The law of 1886, being the first experiment of the state in the field of factory legislation, and being moreover the result of a compromise between opposing forces, was by no means perfect, and the first year of its administration developed defects and numerous omissions, and led to the recommendation of various changes in the report of the factory inspector for that year. The law was accordingly amended by the next

legislature, in Chapter 462 of the Laws of 1887. Except for slight changes in detail and wording of section 2, the law of 1886 was left untouched, the amendment consisting in the addition of new regulations of which the following is a summary :

Section 8. Hoist shafts and well holes in factories to be guarded, and elevators furnished with trap or automatic doors. Sec. 9. Hand rails on all stairways; rubber covering on steps, where ordered by the factory inspector; stairs screened at sides and bottom; doors to open outwardly where practicable, and not to be locked during working hours. Sec. 10. Fire escapes required on outside of all factories three or more stories in height. Sec. 11. Automatic belt shifters to be provided where required by the factory inspector. No woman under twenty-one years of age and no boy under eighteen to be allowed to clean machinery while in motion. All gearing and belting to be properly guarded. Sec. 12. All accidents to be reported in writing to the factory inspector, within forty-eight hours, stating cause and extent of injury, and place where injured person has been sent. Sec. 13. Proper wash rooms and water-closets to be provided for female employees, separated from those used by males, and properly screened and ventilated and kept clean. Sec. 14. At least forty-five minutes to be allowed for the noonday meal in all factories, except where a permit for shorter time is granted by the factory inspector. Sec. 15. Eight deputy factory inspectors to be appointed by the factory inspector. The succeeding sections (sections 16-22) relate to details of administration which need not be described here. Sec. 21 requires that a copy of the law be posted in every work room where persons affected by its provisions are employed.

These additions were all made in response to recommendations of the factory inspector in his first report. The bill was pushed by the Workingmen's Assembly and the Society for the Prevention of Cruelty to Children and opposed by the manufacturing interests in about the same way as has been described in connection with the law of 1886.

An important difference will be noticed between the act of 1886 and that of 1887. The former related solely to the employment of minors, or to be more exact, to males under eighteen and females under twenty-one years of age, and did not apply to factories in which only adults were employed. But the law of 1887 advances the principle of affording legal protection also to adult workers. The hours of labor of adults are not limited except by the requirement of forty-five minutes for the noon meal; but the sections affording protection to life and limb by requiring the guarding of elevators, stairs, and machinery, providing fire escapes, and reporting accidents apply to all factories and all employees regardless of sex and age.

The most important addition to the law is the section requiring separate toilet facilities, properly screened and kept in good condition, for female employees. A state of affairs had existed for years in many of the factories of the state which called urgently for remedy. The use of the same water-closets, sometimes screened, sometimes not, by men and women, boys and girls, was a common practice in factories. It is not necessary at this point to produce the evidence, or to describe the deplorable state of immorality which was the natural result in a great many of the factories where women were employed.

The age limit below which it was illegal to employ

children was put at thirteen in the law of 1886, although the demand was for a fourteen year limit. The bill introduced in 1887 raised the limit to fourteen years, but this amendment was stricken out during the progress of the bill through the legislature. Another amendment demanded by the factory inspector and introduced in the bill was to make the act apply also to the employment of women and children in mercantile establishments. This amendment likewise failed to pass, and it was not till nine years later that the legislature was finally persuaded to grant the same protection to women and children in stores as they had been receiving in factories.

The Act of 1889.—Two years later the factory law was again amended and important changes were made. The act is Chapter 560 of the Laws of 1889. By this act the hours of labor of women under twenty-one and boys under eighteen years of age were restricted to ten hours a day, in addition to the previous limitation of sixty hours a week. This weakness of the original law was evident before it had been in force a year, and the amendment was urged by the factory inspector from the first. Under the original law, while the week's labor was limited to sixty hours, there was no limit to the number of hours of labor in any single day. Consequently, whenever a legal holiday occurred, or for any other cause work was suspended for a day or two, it was common for manufacturers to make up the full week's time by requiring extra work on other days. Or if for any reason a manufacturer desired to keep his plant running extra time on some day, he could keep his hands working for any number of hours, twenty-four in succession if he wished, and keep within the law by merely subtracting the necessary number of hours from

some other day or days before the close of the week. Dozens of complaints of excessively long hours came to the factory inspectors, but so long as the labor for the whole week did not exceed sixty hours they were powerless to interfere. The amendment of 1889 limited the day's labor to ten hours, except that over-time was allowed on the first days of the week in order to make a shorter workday on Saturday. The work of females under twenty-one and of males under eighteen was further restricted by prohibiting their employment after nine o'clock in the evening and before six in the morning, thus putting a stop to night work. This change, also, had been recommended for two years by the factory inspector. Section 13, relating to water-closets used by women, was amended so as to require that *all* closets, including those used by men, be properly ventilated and kept in a clean condition.

Several important alterations were made by the act of 1889 in the sections relating to the employment of children under sixteen years of age. In the first place, the age limit for child labor was raised to fourteen years, thus satisfying a very general demand. An educational test for children under sixteen was applied for the first time in this act, which provides that no child under sixteen years of age, who cannot read and write simple sentences in English, shall be employed in a factory except during the school vacation. It should be borne in mind that the compulsory education law was still a dead letter throughout practically the entire state. Another provision demanded by the inspectors from the first, and enacted in this act, was one giving them power to require a physician's certificate where children appeared physically unfit to perform the labor required of them.

The act of 1889 corrects a deficiency in the original act, by supplying an exact definition of a factory, or "manufacturing establishment," within the meaning of the law, as "any place where goods or products are manufactured, repaired, cleaned or sorted, in whole or in part;" establishments where less than five persons are employed are excepted, unless situated in cities.

Important changes are made in the section regarding fire escapes. This matter of fire escapes has been one of the most troublesome parts of the law to enforce, especially during the early years. The first law on the subject (L. 1887, ch. 462, sec. 10) was brief and indefinite, reading as follows:

Sec. 10. Fire escapes shall be provided on the outside of all factories, three or more stories in height, connecting with each floor above the first, well fastened and secured and of sufficient strength. Stationary stairs or ladders shall be provided on the inside, from the upper story to the roof, as a means of escape in case of fire.

This law was the first general law regarding fire escapes on any kind of buildings in the state. The factory inspector, in his report for 1887,¹ says:

"Outside of the three largest cities, practically no attempt was ever made in this state to provide proper means of escape from burning buildings, until the last Legislature passed a law requiring that ropes, sufficiently long to reach to the ground, be fastened in each bed room of all hotels (with the enforcement of which we have nothing to do), and the section at the head of this chapter was added to the factory laws about the same date.² Various places had local ordinances on the subject, but they were never enforced."

Needless to say, when the new section of the factory law went into effect, numerous manufacturers sought to

¹ N. Y. fact. insp. rep. 1887, p. 35.

² Reference is to section 10 of the law, quoted above.

evade the law, and various ingenious devices were constructed with the idea of just escaping the law, with the least possible outlay. A very common form of escape consisted merely of a straight ladder extending from the ground to the roof opposite the windows, but without balconies or connections of any kind with the windows; an affair which would of course be practically useless to save a building full of women and children, in case of a fire. Another contrivance, quite commonly used, was "made of gas-pipe, bent and driven into the wall, that would require a trapeze performer to descend," to use the words of one of the deputy inspectors.³ The factory inspector held that the words of the statute, "connecting with each floor," meant that balconies should be constructed, and ordered accordingly. Certain manufacturers in Rochester employed counsel, and at his advice refused to erect anything more than the straight ladders, with nothing to stand on at any floor except the round of the ladder. This was in 1887. The next legislature was vigorously urged by the factory inspector to amend the law so as to make it possible to compel the erection of safe and serviceable escapes. A bill was introduced embodying such provisions, but was killed in committee. After the legislature adjourned an attempt was made to test the meaning of the law as it stood by prosecuting the Rochester manufacturers referred to above. Warrants for their arrest were, however, refused by a police judge of Rochester, on the ground that the words of the statute did not require balconies. This left nothing for the inspectors to do except to urge manufacturers to erect escapes complying with the spirit as well as the letter of the law.

³ Fire escapes not much better than these are still in existence on some of the large factories of the state.

On November 9, 1888, there occurred a disastrous fire in a Rochester factory, at which thirty-five employees were killed and some fourteen injured, largely as a result of defective fire escapes. This factory was provided with two of the gas-pipe affairs described above. The superintendent had been ordered by the deputy inspector to provide balconies and had promised to do so, but had provided them on only one escape. Moreover, the escapes were improperly placed and so rendered of still less use. This disaster called public attention to the matter of fire escapes in factories, and at the next session of the legislature the factory inspectors were able to secure the amendment to the law which they had been urging for two years. The amendment provides minute specifications for a fire escape having iron balconies embracing at least two windows and guarded by a railing, and connected by inclined stairways, etc.; this particular kind of escape to be required at the discretion of the factory inspector.

The last important change made in the act of 1889 was the requirement that vats and pans and machinery of all kinds should be properly guarded (the previous law had referred only to gearing and belting), and that exhaust fans should be provided to carry off dust from "emery wheels and grindstones, and dust-creating machinery."

The Act of 1890.—The next amendment of the factory law was in Chapter 398 of the Laws of 1890. No fun-

¹ The student who reads the law in force after the passage of the amendments of 1889 may be surprised to find no provision requiring the reporting of accidents. This was due to an error of the printer or one of the clerks of the legislature, by which the section of the law referring to the guarding of machinery was partly duplicated, while that relating to the reporting of accidents was omitted. The error was corrected in the amendment of the next year.

damental changes were made; most of the changes were in the wording of sections so as to make the meaning more clear and the provisions more definite, or were to remedy technical defects disclosed in the working of the law. It will be necessary merely to specify the most important of these alterations.

In the act of 1886, the work of males under eighteen and females under twenty-one was limited to sixty hours a week, "unless for the purpose of making necessary repairs." This was limited, in 1889, to such repairs to machinery as might be necessary to avoid shutting down the plant, and finally was stricken out entirely by the act of 1890, which makes the sixty hour limit absolute. The restriction of the hours of labor of women under twenty-one years of age and males under eighteen is further strengthened by forbidding work in any one week for more hours than will make an average of ten hours a day for the number of days worked. This makes it illegal for an establishment which is not running all six days of the week to work overtime habitually on the days when it is in operation. For example, a factory might shut down regularly on Saturdays and claim the right to work eleven or twelve hours on the other five days of the week, on the ground that the overtime was being made up by the granting of a full holiday on Saturday. This is illegal under the law as amended. A little more discretion is given the factory inspectors regarding the exact specifications to be insisted on in the matter of fire escapes. Manufacturers are required to furnish dressing-rooms for their female employees, where considered necessary by the factory inspector.

The act of 1890 increased the force of inspectors by allowing the factory inspector to appoint not more than

eight women deputies. In connection with this amendment there was quite a bitter fight between the factory inspector and his assistant on the one side and an organization known as the Workingwomen's Association, together with a number of individual women interested in philanthropic work in New York City, on the other side. These women were dissatisfied with the way the factory law was being administered, and believed that better results would be obtained by women inspectors. There was also a more or less general idea that the women and girls employed in factories were being subjected to indignities and insults, and that a state of immorality existed which it was impossible for the male inspectors to discover or remedy. Agitation developed in 1888 in favor of female factory inspectors, and a bill was introduced providing for the appointment of not less than six women to such positions. This bill was vigorously opposed by the factory inspector and his assistant, especially when the bill was amended so as to make the women inspectors independent of the state factory inspector. The bill was defeated. The agitation for women inspectors was renewed with increased vigor in 1890, and again a bill was introduced providing for female inspectors wholly independent of the state factory inspector's office. As before, this bill was vigorously opposed by the factory inspector, on the ground that it would disorganize the department and the whole work of factory inspection. A compromise was finally accepted by which the factory inspector was authorized to appoint not more than eight women as deputy inspectors, the women being placed under his authority on exactly the same footing as the male deputies. Although he had been opposed to the idea of female deputies from the start, the factory inspector made the

authorized appointments and gave the new deputies a fair trial, and in his report for 1891 stated that the work of the female inspectors had proved in the main satisfactory. Ever since this time there have been about ten women inspectors doing practically the same work as the men.

The Act of 1892.—The factory law was amended again in 1892 (L. 1892, ch. 673). As was the case in 1890, most of the changes relate to matters of technical detail or are designed to strengthen the wording of various parts of the law without materially changing its content. This law may in the main be passed over with only a brief summary of the most important changes made.

The operation or care of an elevator by a child under fifteen years of age is forbidden, or by any person under eighteen in case the speed of the elevator exceeds 200 feet a minute. The factory inspector is authorized to inspect the apparatus of elevators and require them to be kept in a safe condition.

It is made illegal for any one to remove the safeguards from machinery when once placed thereon, except for the purpose of making immediate repairs. This provision was directed, not against the manufacturers, but against the employees themselves, who were found in numerous cases to have removed guards after their employers had gone to considerable expense in furnishing them. Many adult workmen seemed to have a certain feeling of pride in working on unguarded machinery, and they were inclined to be sensitive or scornful when the guards required by the law were placed on their machines. The act also gives the factory inspector power to attach a notice to any unsafe machine forbidding its use until made safe.

The law regarding water-closets is amended by requiring separate approaches to the closets used by the different sexes.

The required noon time is increased from forty-five to sixty minutes.

Walls and ceilings of workrooms must be whitewashed if considered necessary by the factory inspector.

Provision against overcrowding is made by requiring that at least 250 cubic feet of air space be allowed to each person in any workroom during the day, and at least 400 cubic feet during the night, unless the room is lighted by electricity. Proper ventilation must also be provided, to the satisfaction of the factory inspector.

The factory inspector is given authority to inspect buildings used as factories and anything attached thereto, outside of the cities of New York and Brooklyn, where the matter is looked after by the local buildings departments, and to condemn and order removed or repaired any unsafe structure.

Finally, a new definition of a "manufacturing establishment," as meant by the law, is given as follows:

§ 17. The words "manufacturing establishment," wherever used in this act, shall be construed to mean any mill, factory or workshop where one or more persons are employed at labor.

This act also contains a section devoted to tenement-house manufacture, which was the first attempt at legal regulation of the tenement "sweat-shop."

The above changes were made for the most part in response to recommendations of the factory inspector, some of them having been urged for a number of years.

The Acts of 1893 and 1896.—Some changes in the law were made in 1893, and again in 1896. The act of 1893, L. 1893, ch. 173), provides that where employees

work overtime for more than an hour after six o'clock in the evening they shall have at least twenty minutes to obtain a lunch. The number of deputy factory inspectors was raised to twenty-four by the act of 1893, and again to twenty-nine in 1896, not more than ten to be women. An important change was made by the act of 1896 (L. 1896, ch. 991), in the section relating to the employment of children. Up to that year any child over fourteen years of age and under sixteen could be employed, provided only that he could read and write simple English sentences and that the affidavit of the parent or guardian had been filed stating the age and date and place of birth of the child. The act of 1896 requires a certificate from the local health officers for every child employed between the ages of fourteen and sixteen. The law on the subject is lengthy and complicated. Its essential features may be summarized as follows:

No child under sixteen years of age is allowed to work in a factory without first having placed on file in the office of the factory a certificate from the local board of health. The certificate must contain: (1) a statement of the date and place of birth of the child; (2) a description of the child; (3) a statement that the board of health is satisfied that the child is physically fit to do the work which it intends to do; and (4) a statement that the board is satisfied that the date of birth as stated is correct, or, in case the date cannot be ascertained, that the child is over fourteen years of age. Before granting the certificate, the board of health must have received and placed on file the affidavit of the parent or guardian as to the date and place of birth of the child; this is the legal evidence of age. The board must also be satisfied that the child has attended a

school where reading, spelling, writing, arithmetic, English grammar, and geography are taught, during the whole of the last preceding school year. A certificate from the school authorities may be accepted by the board of health as evidence of school attendance. Children who have satisfied all the above requirements except the one of school attendance may receive a "vacation certificate" entitling them to work in factories during the vacation of the public schools.

The purpose of this amendment was to check the employment of children under the legal age, who were nevertheless supplied with affidavits in due form stating that they had reached the required age. From the very first it had been a common practice for parents to swear that their children were fourteen years old (thirteen under the first law) or over, one, two, or three years before they had reached that age. The desire to add the earnings of the small children to the family income was strong enough to make them swear to a false age. There were always found notaries who were willing to administer the oaths, even when the children were obviously younger than the age stated. The manufacturer was of course perfectly willing to accept children of any age, regardless of the truth or falsity of their affidavits; and so long as the required affidavit was on file the law was technically satisfied and the factory inspector could do nothing. The original factory act had no sooner gone into effect than this weakness was detected. In his report for 1886, covering the first year of the operation of the law, the factory inspector makes the following statement:

"The number of parents who were willing to commit perjury in order to keep their children in the factories, was enormous, and the youngsters were usually care-

fully drilled to sustain the sworn statements of their parents. Little boys and girls who could not possibly be more than ten, eleven, or twelve years of age, would stoutly and brazenly insist that they were over thirteen years of age. If asked what year they were born, they would sometimes name a date that would indicate that they were not so old as they pretended to be; then, after further questioning the admission would be made that they had been told to misstate their age. . . . It will be seen, on reading the law, that it went into effect on the fourth day of July. The number of children who claimed to have become thirteen years of age on the *fifth* of July, were so great as to be amusing, were it not saddening to think of the motives which prompted the evident falsehood."¹

Under the factory law, there was no remedy against these false affidavits of parents and guardians. The employer was protected by the false affidavit. The only other means of stopping the practice were either to prosecute the parents for perjury or to bring suit against the notaries who made out the false certificates. The latter was attempted, and in 1887 eight cases were brought against one Silas Owen, a notary public of Cohoes, who was charged with having certified that parents had sworn to the ages of their children when they had in fact not sworn, and also with having put false dates in the certificates.² The failure of the grand jury to find indictments in these cases discouraged the factory inspector, and no further attempts to prosecute in this way are recorded, with the exception of a case against the same man for signing parents' names to certificates without their knowledge, which was brought in 1893, in which case the jury brought in a verdict of not guilty. Only one prosecution of a parent for

¹ N. Y. fact. insp. rep. 1886, p. 17.

² N. Y. fact. insp. rep. 1888, p. 67.

perjury is on record, and in that case the grand jury failed to indict.

It was hoped that the amendment of 1896, requiring a certificate from the board of health, granted only after the board had examined the child and the parent's affidavit and been satisfied that the child's age was correctly stated, would put a stop to the employment of young children by means of false affidavits. This hope was disappointed, and the use of false affidavits continued on a large scale down to 1903, when the law was made effective by requiring documentary evidence of age.

The amendment of 1896 was brought about largely as the result of an investigation carried on by a legislative commission known as the Reinhardt Committee. This body was appointed by the Assembly in March, 1895, for the purpose of investigating the condition of female labor in New York City. The committee went to work immediately, and made its first report to the Assembly in May, 1895, in which it stated that the task given it was too great to be completed in so short a time and asked to be continued for another year. This request was complied with, and the committee made a more or less extended investigation of the condition of child and female labor in New York City, transmitting its second report to the Assembly in January, 1896. The committee divided its work between factories and mercantile establishments, and held public hearings, examined numerous witnesses, and made personal investigations of work places in New York City. In its final report the committee stated that the employment of children under the statutory age was one of the most extensive evils then existing in New York City. This state of affairs was made possible by the evasion of the

law through false affidavits of age. It was shown how ready parents were to swear falsely to the ages of their children, and how easy it was for them to find notaries who, for the fee of twenty-five cents, were willing to be party to the perjury. To correct this evil the committee recommended that certificates from the boards of health be required for all children between the ages of fourteen and sixteen as a condition of their employment in factories.

The Reinhardt Committee devoted their investigation not merely to the question of child labor, but made a general study of the conditions under which women and children were working in the factories and stores of the City. Two bills were drafted by the committee and recommended to the legislature, one being an amendment of the factory law, while the second regulated the employment of women and children in mercantile establishments. The former bill was passed practically without change, becoming Chapter 991 of the Laws of 1896.

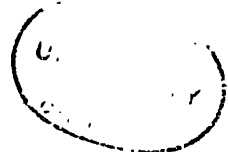
The Mercantile Law of 1896.—There was another piece of legislation enacted in 1896 which, while not coming within the strict limits of this paper, is still of sufficient importance in its bearing on the general subject of legislative restriction of the employment of women and children to warrant some passing notice at this point. This is the "mercantile law," which substantially extended the provisions of the factory law to cover the work of women and children in stores. The logic of such legislation had been pointed out, and a more or less vigorous demand for it had been in existence from the passage of the original factory act ten years before. In his first report the factory inspector called attention to the lack of any good reason why women and children

should be protected in factories but not in stores, and he recommended that the factory law be amended to apply to both "manufacturing and mercantile establishments."¹ The same argument and recommendation occur in each subsequent report till the passage of the law. The demand for such legislation, however, was not strong enough to secure any result, in the face of the strong and united opposition of the mercantile interests; and down to 1896 the employees of the mercantile establishments of the state were not protected by any special statutes excepting the law of 1881, already referred to, which required the furnishing of seats for female employees in stores, but which was nowhere enforced. The factory inspector thought he saw in this extinct act a chance to give employment to the eight female inspectors who were given to him by the legislature of 1890, and who for a number of years seem to have been something of a problem on his hands. Year after year he urged the legislature to give him authority to have the women enforce the law of 1881, but without success.

In 1894 a bill was introduced in the legislature, regulating the employment of women and children in mercantile establishments and placing the matter in the hands of the factory inspector's department. This bill, known as the "Ainsworth Bill" was successfully fought by the great drygoods merchants in 1894, and again in 1895, when it was re-introduced. The Reinhardt Committee² in 1895 and 1896 made an investigation of the subject of child and female labor in mercantile establishments in New York City, in the course of which they held public hearings on the Ainsworth Bill.

¹ N. Y. fact. insp. rep. 1886, p. 31.

² See p. 62.



The bill was advocated by the Workingwomen's Association, the Consumers' League, and others, and opposed by the association of retail dealers affected. A compromise was finally agreed on and the bill as drafted by the Reinhardt Committee was passed, becoming Chapter 384 of the Laws of 1896.

It will not be necessary to go into the details of this law, further than to say that it extended the main features of the factory law to the employment of women and children in stores. The act applied only to cities and incorporated villages of three thousand inhabitants or over. There were certain exceptions which very materially reduced the effectiveness of the law. Thus the ten hour limit to a day's labor was not to apply to Saturday, the one day of the week, of course, when hours are the longest. And the whole section regulating hours of weekly and daily labor was suspended during the period between December 15 and January 1, which includes the annual holiday rush season and the very time when the evils of long hours exist in their worst form. But even with these serious defects, the law has been, with very rare exceptions, absolutely unenforced. The administration of the law was placed, not under the state factory inspector's office, as proposed in the original bill, but in the hands of the local boards of health, which boards have been practically unanimous in allowing the law to become a dead letter. The main agitation for the passage of the law came, of course, from New York City, and was directed chiefly against the large department stores. In New York City the friends of the law succeeded in having inspectors appointed and an appropriation made for their salaries and expenses. Fourteen inspectors were appointed, and for one year the law was

enforced as efficiently as possible. Then the department store influences went to work, and the second year succeeded in having the appropriation for salaries cut out, with the result that the law has been a dead letter ever since. During the Low administration Dr. Lederle did the best he could by appointing two women of independent means who were willing to serve without remuneration. But the time which they were free to devote to the matter was limited, and not much was accomplished; the law is violated openly every day. This failure of the New York City government to enforce the law led governor Roosevelt in 1899 to recommend that its enforcement be transferred to the state factory inspector, but the legislature did not act on his suggestion.

The Act of 1897.—The whole labor law was revised and consolidated in Chapter 415 of the Laws of 1897, known as the labor law. Numerous changes in wording and arrangement were made at this time, but nothing was done to materially alter the law. The number of deputies was increased to thirty-six, not over ten to be women; and a new definition of a "factory" was given, as follows: "The term 'factory,' when used in this chapter, shall be construed to include also any mill, workshop, or other manufacturing or business establishment where one or more persons are employed at labor." It is also provided that, when considered necessary by the factory inspector, the halls leading to workrooms must be properly lighted.

The Acts of 1899.—Some important changes in the law as it affects the employment of women were made in 1899. Sections 77 and 78, limiting the hours of labor of minors under eighteen years of age and women under twenty-one were then made to include all women.

A new provision was also introduced which forbade the employment of any minor under eighteen years of age or any female in the operation of "any emery, corundum stone or emery polishing or buffing wheel." Two other new features were added to the law in 1899. It was made illegal for children under sixteen years of age to operate or assist in the operation of dangerous machinery. Provision was also made, for the first time, for the regular inspection of boilers in factories, under the direction of the factory inspector. The part of the law relating to the lighting of halls was broadened to read as follows: "When, in the opinion of the factory inspector, it is necessary, the workrooms, halls and stairways leading to workrooms shall be properly lighted." Finally, the number of deputy factory inspectors was increased from thirty-six to fifty, not more than ten of them to be women. These amendments were all enacted in response to recommendations of the factory inspector. The extension of the law so as to include all women in the restriction of hours had been urged for a number of years. The women themselves demanded it, although the law, by discriminating between those over and those under the twenty-one year limit, had driven many women actually under twenty-one years of age to state that they were older, in order to keep their positions or be enabled to make larger wages. The amendments made in 1899 are all contained in Chapter 192 of the laws of that year, with the exception of the section relating to polishing and buffing, which is Chapter 375.

The Acts of 1901.—Three acts were passed in 1901 which have some bearing on the factory law. Chapter 306 provides that inside water-closets shall be provided whenever practicable; Chapter 475 requires the posting

of Articles V, VI, and VII of the labor law ; and Chapter 9 provides for the consolidation of the three bureaus, labor statistics, factory inspection, and mediation and arbitration, into a single body known as the department of labor, without, however, making any change in the body of the factory law. We shall have occasion to refer to this consolidation in the chapter on administration.

The Employers' Liability Law of 1902.—A study of factory laws would not be complete without some mention, at least, of the law regulating the liability of employers for injuries sustained by workmen in their employ.

Previous to 1902, the matter of employers' liability was regulated only by common law. The organized laborers of the state had been agitating for years in favor of an employers' liability law, and the law of 1902 (Chapter 600) came as the culmination of a seven years' campaign on their part. The law of 1902 provides in substance that "Where . . . personal injury is caused to an employee who is himself in the exercise of due care and diligence at the time," either by reason of any defect in the condition of machinery, etc., due to the negligence of the employer, or by reason of the negligence of any person in the position of superintendent, the employee shall have the same right of compensation as if he had not been engaged in the service of the employer.

Section 2 of the act provides that no action for recovery of damages shall be maintained unless notice of the time, place and cause of the injury is given to the employer within 120 days, and the action be commenced within one year after the occurrence of the accident.

Section 3 provides that "An employee by entering

upon or continuing in the service of the employer shall be presumed to have assented to the necessary risks of the occupation or employment and no others." By "necessary risks" are meant only those inherent in the nature of the business, "after the employer has exercised due care in providing for the safety of his employees, and has complied with the laws affecting or regulating such business or occupation for the greater safety of such employees." The fact of an employee continuing in the service after having discovered the danger of personal injury shall not, as a matter of law, be considered as an assent to the existence of such risks, or as involving contributory negligence. "The question whether the employee understood and assumed the risk of such injury, or was guilty of contributory negligence . . . shall be one of fact." But an employee shall not be entitled to damages in case he knew of the defect or negligence causing injury and failed within a reasonable time to give notice of it to the employer, unless it appears at the trial that the defect or negligence was known to the employer prior to the accident.

Section 4 provides that an employer who has insured himself against damages for injuries to employees "may prove in mitigation of damages recoverable by an employee under this act such proportion of the pecuniary benefit which has been received by such employee from such fund or society on account of such contribution of employer, as the contribution of such employer to such fund or society bears to the whole contribution thereto."

Section 5 states that this act shall not be construed to limit in any way any previously existing right of action, and also that the failure to give the notice required in section 2 shall not bar the maintenance of a suit upon any previously existing right of action.

CHAPTER VI

THE LEGISLATION OF 1903

Introductory.—The final amendment of the factory law and the culmination of the movement against child labor came in 1903. The statutes enacted in that year were exceedingly important and far-reaching, and the movement of which they were the fruit was one of the most remarkable legislative campaigns in the history that we are tracing. The four main objects accomplished were: first, the substitution of documentary evidence for the parent's affidavit as to the age of a child under sixteen; second, the reduction of the hours of labor of children under sixteen years of age to nine per day, without any exceptions; third, the regulation of the employment of children in street trades; *i. e.*, newsboys, messengers, etc.; and fourth, the amendment of both the compulsory education law and the factory law so as to make the educational requirements broader and more effective, and especially to bring the two laws into harmonious working with each other. Strictly speaking, all of this does not belong to the factory law, but, as has already been said, the subject of the employment of children in factories and its regulation by law cannot be properly studied without considering both the factory law and the education law. Enough of the history has already been given to show that the two are inseparably bound together. Moreover, one of the chief aims of the legislation of 1903 was to amend both laws so as to make effective the union already existing between them and to remove certain points of disagreement. A study of the amendments to the compulsory

education law is therefore necessary to an understanding of the changes made in the factory law, and each will be taken up in turn. The regulation of the so-called "street trades" was a move in a new direction. Its administration is in the hands of the local boards of health, and as the law does not relate to factory employment it lies without the scope of this paper. Mention is made of it only as forming an integral part of the legislative program of 1903.

Evidence of Age, etc.—Our courts have always recognized the parent's affidavit as conclusive evidence of the age of a child. When the original factory law was enacted in New York, forbidding the employment of children under the age of thirteen in the factories of the state, it very naturally provided that the affidavit of parent or guardian should be taken as evidence that any child had reached the legal age entitling him to work. This remained the sole evidence of age down to 1903, in spite of constant perjury on the part of parents and a steady stream of eleven, twelve, and thirteen year old children entering the factories, all armed with false affidavits, or certificates based on false affidavits. And there was nothing secret about this state of affairs; it was all perfectly evident to those who cared to look, and public attention was called to it year by year in the reports of the factory inspector.

We have already referred to the course of events during the first ten years of the operation of the law, and have described the ineffectual attempts of the factory inspector and his assistant to remedy the evils by prosecuting notaries who made out false certificates. Then came the act of 1896, with its elaborate provision for certificates from the boards of health. These provisions

have been described in detail above.¹ The parent's affidavit was still required, and was to be filed with the board of health before a certificate was granted; the only additional safeguard provided was the requirement that the board of health should not issue the certificate unless they "are satisfied that said child is fourteen years of age," etc. The health officers were thus in effect required to scrutinize and pass on the parent's affidavit, after it had been sworn to before a notary. Great hopes were entertained that this would result in a sweeping reduction of the false certificates. Thus the factory inspector, in his report for the year 1896,² says: "That the old law was very defective is well known; the cupidity of ignorant or covetous parents, aided by mercenary or corrupt notaries, was the main cause for the continuation of the abuses which the amended law aimed to prohibit. For a parent who would force his child into a workshop or factory at a tender age would not long hesitate to swear to a lie as to the age of the child. And the fact is notorious that all such parents encountered no difficulty in finding a notary public who, for a mere fee of twenty-five cents, was ready and willing to aid in the crime. . . ." Then follows the amended section of the law, after which the report continues: "It will be readily seen that the manner of granting certificates to children between fourteen and sixteen years of age, as provided for in the above section of the law, leaves very little room for evasion; for a notary who administers an oath to the parent or guardian of a child understands that the subject of that oath will be reviewed by the health officer authorized to grant the required certificate, and the health officer

¹ See pp. 59-62.

² N. Y. fact. insp. rep. 1896, pp 13-18.

making such examination in turn understands that his work will be closely scrutinized by the officers of the factory inspection department when they visit and inspect the establishment in which the child is employed." It may be worth while to state that the administration of the factory inspection department had just changed hands, and that the writer of the above had been in office less than a year. Had he enjoyed the experience of his predecessor in vainly attempting to secure the conviction of dishonest notaries, or been as familiar with the law as he doubtless became after a few years' experience, he would probably have taken a less complacent view of the situation; assuming, of course, that the above quotation is an honest expression of opinion. As a matter of fact, the law gave absolutely no authority to the factory inspectors to review the work of the health officer in granting certificates. The factory inspector's office had no power to go back of the certificate. So long as a child had a certificate, made out in proper form by the board of health, that child was legally employed, even though it was perfectly evident at a glance that the child was not more than eleven or twelve years old. The amendment of 1896 was like the original law in basing evidence of age on the parent's affidavit, and the mere multiplying of officers to "scrutinize" the affidavit was a useless complication.

That little or no good resulted from the amendment of 1896 so far as the perjury of parents was concerned, that parents and notaries continued to make out false affidavits with impunity, and that children under the legal age of fourteen continued to find employment by that means up to the year 1903, is established by an overwhelming mass of testimony. Only a few examples need be introduced here.

In a circular issued February 1, 1903, by the New York Child Labor Committee, the following statement is made: "Tempted thus¹ to put their children at work under the age of fourteen years, parents secure an employment certificate by means of a *false affidavit regarding the age of the child*. They have merely to swear that the child is fourteen, and the child, although only thirteen or twelve, or even of fewer years, is granted the employment certificate which permits him to begin an uninterrupted life of labor. A mass of testimony showing perjury of this sort comes from teachers of public schools in the lower grades. Under the present law teachers are required to insert upon the employment certificate a statement regarding the child's school attendance, and they have thus an opportunity to notice the age of the child as stated in the parent's affidavit, which appears also upon the same certificate. The principal of an East Side school states that three out of five of the certificates which come to her bear affidavits of the parents which she knows from her school records to be false."

The state factory inspector, in his report for 1901 (issued in 1903),² states that "In spite of the unquestionable benefits accomplished by the law, it cannot be called satisfactory even yet. It is too easily evaded. Thus the foregoing table shows that the inspectors every year find between 300 and 500 children illegally employed in factories, either because they are illiterate or under legal age (fourteen years), . . . Of course the violations or evasions of the law that are discovered by the inspector constitute only a fraction of such cases.

¹That is, by the lack of harmony between the compulsory education law and the child labor law.

²N. Y. fact. insp. rep. 1901, p. 136.

. . . Some children when asked their age will reply : 'Do you mean my school age or my real age ?' They have been deliberately taught to report themselves to the school teacher older than they really are in order that later on they may begin employment before they reach their fourteenth year. The greatest trouble thus comes from the misrepresentation of the child's age by his parents. . . . The only effective remedy for this sort of thing is the requirement of a certificate of birth in place of the parent's affidavit of age."

The following is from a circular issued by the state superintendent of the department of public instruction after the passage of the amendments to the compulsory education and child labor laws in 1903: "Yet these statutes were being constantly violated by parents committing *perjury* in swearing to the ages of their children ; and when an attempt was made by due process of law to punish such parents the outcome was usually most discouraging, as the courts almost invariably held that the 'sworn statement of a mother must be accepted as conclusive evidence of the date of the child's birth.' Such a ruling opened before a guilty parent a sure way of escape from the penalty of her crime. . . . A careful examination of court records will show a very small number of convictions secured for perjury as compared with the number of parents justly charged with that crime. An examination of school records by my inspectors often reveals the fact that many parents make false statements to teachers from year to year as to the ages of their children for the sole purpose of getting them out of school for employment at a period prior to that provided by statute."

The Reinhardt Committee called attention to the evil of false affidavits, both in its preliminary report of 1895

and in its final report presented to the Assembly in 1896. In the latter report, after stating that "The committee stamps the employment of child labor under the statutory age as one of the most extensive evils now existing in the city of New York," the following statement is made regarding parents' affidavits: "Parents and mercenary and corrupt notaries alike connive at the employment of children under statutory age. A parent who is willing to permit his child to work in a factory at an age under fourteen, is ordinarily just as willing to perjure himself as to the age of the child. To carry out his purpose he has little difficulty in obtaining the assistance of a notary, who is willing, for the illegal fee of twenty-five cents, to be a party to the crime. . . . The committee discovered that the making of affidavits of the age of children was engaged in by notaries public as a business." One notary testified that he made out "maybe 300 a year" and at present had no other means of livelihood.¹

Governor Odell, in his message to the legislature, January 7, 1903, said: "The laws relative to the employment of children are in such an unsatisfactory condition that their enforcement is almost impossible."

Any number of passages might be quoted from editorials in various newspapers of New York City and other cities of the state, to show that the common perjury of parents was a well known fact. Two or three only will be given.

"Everyone interested in the subject knows that the present laws are evaded by the willingness of parents to perjure themselves."—*N. Y. Commercial Advertiser*, Jan. 13, 1903.

"If this regulation can be enforced it should have the effect of diminishing the amount of perjury now

¹ N. Y. ass. doc. 1896, No. 29, pp. 3, 5.

committed by avaricious parents, who are anxious to profit by the earnings of their young children."—*Brooklyn Times*, Feb. 5, 1903.

"Everyone interested in the subject knows that the present laws are evaded by the willingness of parents to perjure themselves because it is easy to do so without running much risk of being found out. They have simply to take the required oath before any notary in the state, which precludes the keeping of any accessible record on which they can be held to account."—*Albany Press*, Jan. 15, 1903.

As a single specific instance we may cite the Chelsea Jute Mills, of Greenpoint, an establishment which has long been notorious among those interested in the matter of child labor and which has come to the public attention through the test case recently brought against the company for violation of the compulsory education law. It was well known that the mills employed many children under the legal age of fourteen, and in the fall of 1903 the school superintendent sent several attendance officers to inspect the mills. They found several hundred girls between the ages of twelve and fourteen at work. They took the names of sixty children who admitted that they were twelve and thirteen years old. The company made no effort to conceal the children and no pretense of believing that they were all fourteen years old. Every child was supplied with a certificate in due form from the board of health, containing the parent's affidavit that the child was fourteen years of age or over. The company was complying with the letter of the labor law, and the factory inspectors could do nothing. The company was, however, prosecuted and convicted, under a clause of the compulsory education law. This very important case will be discussed at some length below, in the chapter on court decisions.¹

¹ See Chapter VII.

Enough has been given to show the very serious weakness of the law, so long as evidence of a child's age was based on the parent's affidavit. It was to remedy this weakness that the law was finally amended in 1903. The rejection of the parent's affidavit was a radical move, and was not made without some misgivings as to its ability to stand the test of the courts. But it seems clear that it was the only course to take, if the law was to be made effective. In place of the parent's affidavit the amended law substituted documentary evidence of age. The certificate from the board of health is required as before, but before this can be granted the child must have given evidence that he is fourteen years old by filing with the board one of the following three papers: (1) a transcript of the birth certificate, (2) a copy of the baptismal or other religious record, or (3) a passport in case the child was born in a foreign country. The birth certificate is regarded as conclusive evidence of age; when it cannot be produced, the parent's affidavit must accompany one of the other documents. This provision was put into the law with the idea that, since the religious record and passport are not quite so conclusive as the birth register, they should be strengthened by the addition of the parent's affidavit. In view of the history of the past seventeen years, one may be pardoned for entertaining serious doubts of the ability of the parent's affidavit to strengthen any other kind of evidence.

Regarding the shortening of the hours of labor of children under sixteen little need be said beyond a mere statement of the substance of the amendment, which restricts their labor to nine hours a day, no exception whatever being allowed. Previously children under sixteen had been under the same restrictions as all minors under

eighteen and all women ; that is, their work was limited to sixty hours a week, and ten hours a day, except to make a shorter workday on Saturday. The purpose of this amendment is obvious. In the first place, the hours of labor are decreased from sixty to fifty-four per week, it being held that sixty hours of labor is too much for a child under sixteen years of age. In the second place, the removal of the permission to work overtime on some days so as to make a shorter workday on Saturday was in order to do away with a provision which invited and resulted in serious abuse. As the law existed before, it was very easy for an employer to keep a child working overtime on a number of days and then refuse to give the promised Saturday half-holiday. Numerous cases occurred where children were thus made to work from sixty-five to as high as seventy-eight hours a week. It is almost impossible for the inspector to prove a violation of the law in such cases. He has to make sure both that overtime has been worked on a given day, and that this overtime exceeded the holiday hours granted on Saturday.

Attention should be called to a slight change in the wording of section 70 of the law, which forbids the employment of children under fourteen years of age. The act formerly read that no such child should "*be employed*" in any factory. This opened the door for an evasion of the law, which was taken advantage of by some employers. A child under fourteen could be brought into the mill nominally to help a parent or elder brother or sister, whose wage would be increased according to the value of the child's work, the employer protecting himself by denying that the child was "employed" by him. The amended section reads: "No child under fourteen shall be employed, permitted or

suffered to work in or in connection with any factory in this state."

Educational Requirements and the Compulsory Education Law.—We now come to the subject of the compulsory education law and the educational requirements of the labor law, as affected by the amendments of 1903. To make this matter clear it will be necessary to go back and trace very briefly the growth of the New York compulsory education law, in so far as it has a bearing on the child labor problem.

Reference has already been made to the compulsory education law of 1874, which was in force in the early eighties, when our history begins. The main provisions of that law have been described, and evidence has been given to show that the law was at that time almost universally unenforced. This law continued on the statute books, and continued a dead letter, until a new compulsory education law was enacted in 1894, or, more correctly, until its formal repeal in 1896. The new law, Chapter 671 of the Laws of 1894, was slightly modified in 1895 (Ch. 988), and again in 1896 (Ch. 606). As amended in 1896, it remained in force till 1903.

The main features of this law, in force from 1896 to 1903, so far as they concern our present purpose, are as follows: every child between the ages of eight and sixteen years is required to attend school, or receive equivalent instruction elsewhere; provided that, (1) those between the ages of eight and twelve shall attend during the whole school year, (2) those between twelve and fourteen shall attend at least eighty days and, in addition, all the time during the school year when they are not regularly engaged in some useful employment, (3) those between fourteen and sixteen shall attend

during the whole school year unless regularly engaged in some useful employment. Parents are required to cause their children to attend school as provided above, or give notice that they are unable to do so. It is unlawful to employ a child between the ages of eight and twelve years at any business whatever during the term of the public school, or to employ a child between the ages of twelve and fourteen who does not present a certificate from the proper school officer stating that the child has complied with the law requiring at least eighty days' attendance at school during the school year. The penalty for violation is a fine of fifty dollars. Provision is made for attendance officers, truant schools, etc., and the state superintendent is authorized to withhold half the public school moneys from any district or city as a penalty for non-enforcement of the law.

It is not our purpose to discuss this law on its merits or to describe its working. It will be seen that the provisions of the attendance law are very similar to certain sections of the child labor law. Indeed the two laws are working along practically the same lines, toward the accomplishment of practically the same end. The labor law tries to prevent the employment of children in factories until they have had a chance to develop their physical and mental powers, and as a means to this end requires a certain amount of school attendance. The school law tries to compel the attendance of children at school, and to aid in the attainment of this end makes it illegal to employ children during the school term. Obviously the difference is mainly one of emphasis. Two such laws, working side by side for so nearly the same purposes, certainly ought to be framed and administered in harmony with each other.

This is just where the law in question failed. The matter of administration does not concern us here ; but certain features of the law itself must be pointed out, which not only prevented a harmonious working with the labor law, but actually rendered it an obstacle in the way of the enforcement of that law.

The labor law absolutely forbids the employment of children under fourteen years of age in manufacturing establishments. The compulsory education law requires the attendance at school, and forbids the employment during the school term, of children between eight and twelve years of age, with no exception. So far the laws are in harmony. But in the case of children between the ages of twelve and fourteen, the school law requires only eighty days' attendance, provided the rest of the year is spent in some useful employment, thus virtually assuming that the labor law will be violated.¹ The strictness of the compulsory education law is thus let up just at the point where its co-operation is most needed by the labor law, for it is between the ages of twelve and fourteen that the temptation to put children to work is greatest. How this exception in the law works to increase illegal employment of twelve and thirteen year old children cannot be better described than in the words of the New York Child Labor Committee in a circular advocating the amendment of the law: "The compulsory education law, instead of reinforcing the child labor law, is in reality in conflict with it. The provisions of this law are such as actually to encourage false affidavits. It requires regular school attendance until the age of twelve, and after that only

¹ Of course a child may be employed elsewhere than in a factory, but so large a proportion of children who work do so in manufacturing establishments that the permission of the school law practically assumes such employment.

eighty days a year if the child is regularly engaged in a useful occupation. The law therefore fixes in people's minds that after the age of twelve regular attendance at school is not obligatory, and associates its discontinuance with the idea of regular work. There remains only the easy task of circumventing the demand of the labor law, which requires that children shall be over fourteen years of age to work in stores and factories." This is accomplished, of course, by the false affidavit of age.

One of the most important acts of the legislature of 1903 was the amendment of the school law so as to eliminate these objectionable features. By simply requiring that all children under fourteen shall attend school during the whole school year, and making it illegal to employ any child under fourteen during the term of the public school, the law was brought into harmony with the labor law. Regarding children between the ages of fourteen and sixteen the law requires, as before, that they attend school during the whole school year, unless engaged in some useful occupation. This provision is a valuable complement of the labor law. The labor law permits children to be employed between the ages of fourteen and sixteen, provided that certain conditions are satisfied. When these conditions are not satisfied the children are refused employment, or discharged if found already employed. These children are then required by the school law to attend school till they are sixteen years old, at which age they are at liberty to go to work without any restrictions from the labor law. The two laws thus work in perfect harmony. Were it not for this provision of the school law, hundreds of children would be turned out of the factories every year, only to roam the streets.

At the same time that these changes were made in the compulsory education law, the educational requirements of the labor law were made more stringent. The former requirement was that before a work certificate was granted to a child, the board of health must be satisfied that he had "regularly attended at a school in which reading, spelling, writing, arithmetic, English grammar and geography are taught during the school year previous to arriving at the age of fourteen or previous to applying for the certificate."¹ The intent of the law, of course, was that the child should have studied the branches named, but the careless wording of the law merely required attendance at a school where these branches were taught. The amendment of 1903 corrected this error and materially raised the standard. Before receiving his certificate the child must now present a statement from the proper school officer, certifying: (1) that he has attended school not less than 130 days during the school year previous to arriving at the age of fourteen or previous to applying for the certificate, (2) that he is able to read and write simple English sentences, and (3) that he has received instruction in the branches named above and is familiar with the fundamental operations of arithmetic up to and including fractions. The intent of the law—and it has been so interpreted by school officers in granting certificates—was to require that every fourteen year old child must have reached at least the grade of the normal child of twelve years. A further strengthening of the educational requirement was the repeal of section 74 of the law which provided for the granting of "vacation certificates" to children who had satisfied all the re-

¹ L. 1897, ch. 415, sec. 73.

quired conditions except that of school attendance. The result of this section had been, first, to deprive children of their vacations by putting them to work as soon as school was over, and second, to lead to more or less permanent employment of children who had not had the required schooling. The children were scattered at the close of school in the mills and factories, and when school opened again very many of them, their parents having become accustomed to the enhanced family income, were kept right on in the factories until they were discovered by an inspector and sent back to school. "Public school No. 180 in New York City furnishes an illustration of the results that follow the employment of children during vacation. Out of the ninety boys who were in this school when it closed in June, 1902, nineteen, or over twenty per cent., went to work and did not return in September. Of the nineteen, eight were not fourteen when they began work, and eleven were between fourteen and fifteen. None of them had had more than two years in school."¹

The Movement Itself.—The movement which resulted in the enactments which have just been described was almost entirely a philanthropic one carried on by disinterested men and women. The idea started among the settlement workers of New York City. The

¹ Extract from pamphlet of N. Y. Child Labor Com. 1902-3. In the Report of the New York City department of health, for 1902, the chief inspector states regarding the law relating to child labor in factories and stores that "There is one weak point in the present law, and that is the section requiring the issuance of what is known as 'Vacation certificates'. Under this section children of twelve years of age may work in stores and children of fourteen in factories, during the vacation season. No school attendance is required. . . . Large numbers of this class of children are in this way employed . . . and when the vacation term ends numbers of them continue on until discovered by the inspectors and are compelled to return to school."

workers of the various settlements have an organization called the Association of Neighborhood Workers, whose main purpose is to concentrate the influence of the settlements for securing legislation at Albany. They started the movement and formed a committee on child labor to conduct the campaign. This was early in the fall of 1902. Robert Hunter, formerly head worker of the University Settlement, was made chairman. In order to give the committee a good standing with the general public and to enable it to do a broad work, its membership was increased by the addition of a number of influential men and women not connected with the Association of Neighborhood Workers, and the Child Labor Committee was launched as an independent body. The committee proved to be exceedingly strong and influential. It went to work vigorously, aided by the settlements, the Consumers' League, nearly all the philanthropic organizations of the city interested in children, and by numerous influential individuals. Assistance and co-operation came from various trade unions, to a certain extent, but their aid was inclined to be perfunctory. The unions took little real interest in the movement and did little efficient work. They were used by the Child Labor Committee to distribute, as their own, the circulars gotten out by the committee, stating the results of its investigations and its appeals for new legislation. In this way the committee was enabled to reach a class who are always inclined to be suspicious of appeals coming from the philanthropists of the "upper class." This was about the extent of the active participation of the trade unions in the movement, although it was endorsed by the Central Federated Union of New York City, which appointed a special committee

to assist in the campaign, and by organized labor in general.

The Child Labor Committee carried on investigations into the conditions of child labor in New York City, and gathered a mass of evidence which was made public through the press and by means of pamphlets and circulars. Every effort was made to bring the facts before the public and by a strong appeal to arouse an irresistible public demand for the legislation desired. The aim was to arouse public sentiment rather than to exert political pressure upon the members of the legislature, or the party leaders. In this the committee was successful. Public interest was aroused to such an extent that the party leaders had to take account of it. In his message to the legislature, on January 7, 1903, governor Odell made the following statement: "The laws relative to the employment of children are in such an unsatisfactory condition that their enforcement is almost impossible. It is the duty of the state to guard against illiteracy, and the truant law, which has this for its object, is made practically inoperative by failure to fully prevent child labor by existing statutes. The law which prohibits the employment of children in factories does not prohibit their employment by such corporations as telegraph and other companies, and I recommend that the present law be so amended as to make effective the statutes regarding the employment of children." There was all this time a strong current of opposition to the bills drawn up by the committee, coming from the merchants' association and the manufacturers, but when the final test came, the public demand was so strong and unmistakable that the committee secured practically everything that it asked for,

and without any very serious opposition. Few legislative campaigns have been marked by such complete success.

NOTE.—For the full text of the factory law as amended by the Legislature of 1903, the reader is referred to a little pamphlet issued in 1903, by the New York state department of labor. This pamphlet contains those parts of the labor law which are to be enforced by the commissioner of labor, with the exception of the part relating to mines. The provisions relating especially to factories are contained in Articles V and VI, pp. 19-34. Article VII relates to tenement-house manufacture. Article VIII relates to bakeries and confectionery establishments. Articles V and VI are given in full in the Appendix, pp. 204-213.

CHAPTER VII

INTERPRETATION OF THE FACTORY LAW BY THE NEW YORK COURTS

While the New York courts have been called upon time and again to pass on various features of the labor law, in its broad sense, there have been relatively few cases involving the construction of the factory law. There have, however, been a few such cases and some of them are important.

The two cases in which the tenement-house cigar law was declared unconstitutional by the Court of Appeals have already been described, and attention has been called to the important bearing of these decisions upon all subsequent legislation in regard to the manufacture of goods in tenement houses.¹

Most of the important cases involving construction of the factory law have been in connection with the doctrine of assumed risk. It will not be necessary to undertake any general discussion of this legal principle. A few words must be said, however, by way of introduction to those cases in which the bearing of the factory law on the questions of assumed risk and employers' liability is involved. The principle of assumed risk under the common law has been well stated, in the following words :

"A servant, by entering upon and continuing in a given employment, by the fact of such continuance is presumed to have voluntarily assumed the risk of personal injuries he may receive, by reason of the ordinary dangers inherent in the employment, by reason of any defect not necessarily inherent in the employment which he knew and understood as a danger before injury re-

¹ See Chap. II.

ceived, whether such defect was occasioned by his master's failure to perform his common-law duty of furnishing his men a safe place to work or not."¹

By this principle it is held that the mere fact of an employee continuing in his place of employment, with knowledge of the dangerous defect in machinery, is evidence that he consciously and willingly assumes the danger and releases the employer from all responsibility for injuries arising therefrom. The question whether an employee assumes the risks of injuries from defect of machinery has been held by the New York courts to be a matter of law for the judge to decide, and the continuance in employment with knowledge of the defect has been held sufficient ground to take the case from the jury and dismiss the plaintiff's action.

This is the principle which has been held under the common law in the state of New York. The enactment of the factory law, however, has imposed upon manufacturers the statutory duty of providing certain safeguards for the employees in their factories, and the question arises of the bearing of this statutory requirement upon the previously existing doctrine of assumed risk. The factory law makes it mandatory upon the employer to provide belt shifters and loose pulleys, to place guards upon all cogs, gearings, and other parts of machinery which might otherwise be dangerous, to have elevator openings properly guarded, etc. In case the employer fails to comply with this statute, can it be held that the workman, who knows of the neglect to comply with the law, assumes the risk of personal injury which may result therefrom, or is the employer to be held guilty of negligence, through his failure to obey the law?

¹ Alger, The courts and factory legislation, *American Journal of Sociology*, Vol. VI, p. 398.

The New York courts have generally held that an employee by continuing at the employment may waive his employer's statutory duty to furnish the protections required by the factory law. Several cases involving this question have come up before the New York courts. In the case of *Simpson vs. The New York Rubber Company* (80 Hun. 415), the general term of the Supreme Court held that the employees could not thus waive the employer's duty to furnish the guards required by the statute, the decision being based on the ground of public policy. This decision, however, was in effect reversed by the Court of Appeals in *Knisley vs. Pratt*, and subsequent rulings of the courts follow this latter case.

In the case of *Knisley vs. Pratt* (148 N. Y. 372), a young woman over twenty-one years of age was engaged in operating a machine with unguarded cog-wheels. Her arm became caught in the cogs and was so badly injured that it had to be amputated near the shoulder. The absence of guards was a clear violation of the factory law, and the accident was undoubtedly due to the lack of such guards. The injured employee sued her employer upon the ground of negligence, claiming that "the failure to perform a duty imposed by statute, when, as the consequence, an injury results to another, is evidence upon the question of negligence of the party charged with such failure." Her case was dismissed by the lower court, and this action was sustained by the Court of Appeals, which held that by entering upon employment with the full knowledge of all the facts, an employee may waive, under the common law doctrine of obvious risks, the performance by the employer of the duty to furnish the protection required by statute. "We are of opinion," says the Court, "that there is no

reason in principle or authority why an employee should not be allowed to assume the obvious risk of the business as well under the factory act as otherwise."

The principle laid down in the case of *Knisley vs. Pratt* is followed by the Appellate Division of the Supreme Court in *Burns vs. Nichols Chemical Company* (65 App. Div. 424), in which the plaintiff, Burns, was injured by falling through an elevator opening in a platform upon which he was employed. The elevator openings were provided with trap doors as required by the factory law, but there were no guards about the openings such as are required by an ordinance of New York City. The trial court charged the jury that the plaintiff did not assume the obvious risks of the employment, because the defendant did not comply with the law requiring that the openings be guarded, and the jury returned a verdict for plaintiff. By a unanimous decision the Appellate Division held that such charge was an error, basing its decision upon the case of *Knisley vs. Pratt* which has just been described. While this case does not come strictly under the factory law, it still shows the tendency of the courts to rule that failure of an employer to provide safeguards required by law does not preclude the assumption of the risks of employment by a servant.

Another decision by the Appellate Division along the same line was given in the case of *Mull vs. Curtice Brothers Co.* (74 App. Div. 561). In this case the plaintiff was employed in a canning factory and had her fingers cut off in a meat cutting machine, through a defect in the condition of the belt which caused the starting of the machine while she was engaged in putting it together, after having taken it apart for the purpose of cleaning it. Attention had been called to the con-

dition of the belt, and she had been promised that it would be fixed as soon as the machinist had time to attend to it. It appeared in the evidence that it was no part of the plaintiff's duty to re-assemble the machine after cleaning it, and that if she had understood the proper way of putting the machine together, the accident would not have happened. The plaintiff was non-suited and the Appellate Division held that this was proper for two reasons: first, that since she knew of the defective condition of the belting, it must be held that she had assumed the risk attending the operation of the machine from which she was not relieved by the provisions of the factory law; and second, that the plaintiff's injury appeared due, in part, at least, to her engaging in work which was not her regular duty, and to her own negligence. This case is significant from the fact that, although the plaintiff appeared to be clearly chargeable with contributory negligence, the court saw fit to state that her assumption of the obvious risk of her employment was not removed by the fact of the violation of the factory law.

The cases so far cited have all been those in which the injured employee was an adult. In *White vs. Witteman Lithographic Co.*, however, we have a case in which the plaintiff was a child, and which seems to show that the Court of Appeals at this time recognized no difference depending upon the age of the injured employee.

In this case (131 N. Y. 630), the plaintiff, a boy of thirteen years, was employed in a factory and while discharging his regular duty was in a perfectly safe place. At the request of another employee, however, he undertook to set in motion a machine and, in so doing, placed his hand where it was injured in the cogs

or wheels of the machine. The gearing was not guarded as required by the factory law, which fact the boy was aware of. The plaintiff's counsel claimed that he was employed in violation of the factory law for two reasons : first, that he was under the legal age for such employment ; and second, that the machine was not provided with the guards required by law. The first of these reasons was evidently due to a misunderstanding of the exact provisions of the law, as was pointed out in the opinion handed down by the Court of Appeals. At the time that the boy was injured, he was thirteen years of age, and as this was in the year 1888 and the law raising the statutory limit to fourteen years was not passed until 1889, the law was evidently not violated in this respect.

On the second point raised, however, both courts agreed that the plaintiff had no case, since the accident was due to his own negligence, and that the failure of the employer to place the required guards on his machinery imposed no liability upon him in a case where an infant employee, knowing of their absence, voluntarily meddled with the machinery.

This case is not so clear on the point we are studying, owing to the fact that the boy was obviously where he did not belong and was guilty, in a certain degree, of negligence. So far as the question arises, however, the Court would seem to hold that the failure of an employer to comply with the factory law, requiring safeguards on machinery, does not relieve an employee of the assumption of the obvious risks of employment, whether the employee be a child or an adult.

Within little more than a year there have been two very important cases, in which the law of negligence, when applied to a child employed in violation of the

factory law, has had an interpretation differing entirely from the cases cited thus far.

The first of these cases is that of *Marino vs. Lehmaier* (173 N. Y. 530), which was decided by the Court of Appeals on February 24, 1903. The plaintiff in the case was employed as an errand boy in a printing establishment in New York City. After serving as errand boy for about three months, he was set to work as feeder of a printing press, which he had to clean every night. While thus engaged one night, his fingers were caught between the cog wheels and cut off. The boy commenced his employment at the age of twelve years and ten months, and at the time of the accident was thirteen years and three months old. The machine was not in motion at the time the boy commenced to clean it, and the evidence did not make clear exactly how the machine was started. It was claimed by counsel that the plaintiff's case was defective in that it failed to show that the plaintiff was free from contributory negligence. It was held by the Court of Appeals, however, that "Section 70 of the labor law, prohibiting the employment of a child under the age of fourteen years . . . in effect declares that a child under the age specified presumably does not possess the judgment, discretion, care and caution necessary for the engagement in such a dangerous avocation, and therefore is not, as a matter of law, chargeable with contributory negligence or with having assumed the risks of the employment," ; and also, that the fact that the violation of the statute constitutes a misdemeanor and renders the employer criminally liable for the employment of children under fourteen years of age, does not relieve him from civil liability for injuries sustained by a child thus employed ; and that the violation of the statute is "a wrongful and

negligent act which of itself furnishes some evidence of negligence in cases where the accident could not have happened but for employment to work in a factory."

The above case covers the employment of a child below the legal minimum age of fourteen years. In the case of *Gallenkamp vs. The Garvin Machine Co.*, decided by the Appellate Division of the Supreme Court in February, 1904, we have a similar case involving the employment of a child between the ages of fourteen and sixteen, in the operation of dangerous machinery in violation of section 81 of the factory law. The plaintiff in this case applied for employment on the third day of June, 1902. His father, who accompanied him, said that he had "just turned fifteen", which was the fact. The superintendent refused to employ him unless he secured a certificate, stating that he was sixteen years of age. By misrepresenting the facts such a certificate was obtained and the boy was employed. On the eighth day of his employment he was injured on a conveyor used to carry tools from floor to floor of the factory. The case was decided in favor of the defendant in the lower court, and when brought before the Appellate Division, the employer sought to sustain the judgment "upon three grounds; first, that this was not a dangerous machine; second, that the plaintiff was neither operating nor assisting in operating it; third, that the plaintiff was guilty of contributory negligence as a matter of law."

All three points were decided against the respondent. Regarding the third, it was held that the mere employment of a child under sixteen years of age in violation of the law is evidence of negligence on the part of the employer sufficient to take the case to the jury. Furthermore, "The question of contributory negligence is for the jury. Sec. 81 of the labor law amounts to a legis-

lative declaration that children under said age are not of sufficient discretion to be deemed guilty of contributory negligence as a matter of law in performing duties assigned to them in violation of the law."

The above cases are the principal ones in which the New York courts have interpreted the factory law in its bearing on the common-law doctrine of assumed risk, and a study of these cases seems to establish the following principles: first, in the case of adults the continuance at the employment with knowledge of the danger arising from unguarded or defective machinery, etc., is held by the New York courts to show acceptance of the risk on the part of the employee, relieving the employer of responsibility in case of injury, even though the absence of guards or the defective condition of machinery be in violation of the express provisions of the factory law. In other words, the employee may, by continuing in the employment, waive the protection afforded him by the statute which requires the employer to furnish certain safeguards. The question whether the employee did or did not assume the risk is held to be a matter of law to be decided by the judge and, if it appears that the employee remained in the employment with full knowledge of the danger arising from the unguarded or defective condition of machinery, even though that condition be contrary to statute, the court will take the case from the jury and decide in favor of defendant. The above principle was laid down in the case of *Knisley vs. Pratt* and has not yet been departed from by the New York courts, in cases where the injured employee was an adult. The question involved is a disputed one and the New York ruling is contrary to that laid down by the courts in England and in many

of the other states of this country. The effect of such a ruling is, of course, to render nugatory, to a great extent, the provisions of the factory law requiring that certain safeguards be placed about factory employment, since the only way left to prosecute an employer for violating the law is by criminal proceedings, a far less effective course than a civil suit for damages.

So much for the rule in the case of adults. Where the injured employee is a child and the violation of the factory law consists in the employment of a child who has not reached the age at which it may be legally employed, we have a very different ruling. It is held that the factory law, in prohibiting the employment of a child under the age of fourteen years, in effect declares that a child under that age has not attained the judgment necessary to enable it to assume the risks of factory employment; in like manner the law, in prohibiting the employment of children under the age of sixteen in the operation of dangerous machinery, declares that a child under that age is incapable of assuming the risks involved in working at such machinery. In other words, a child under fourteen employed in any way in a factory, or a child under sixteen employed in operating a dangerous machine, is held to be incapable of contributory negligence, as matter of law, and the mere fact of employment in violation of the factory law is evidence of negligence on the part of the employer sufficient to give the case to the jury. The two cases in which this principle is handed down are both recent ones, and the ruling is apparently at variance with that formerly held. There can, however, be no mistaking the terms in which the decisions are expressed in the two cases cited. The principle thus laid down seems to be in the line of good judgment and common sense

and is certainly calculated to greatly increase the effectiveness of the factory law so far as it relates to the employment of young children.

A case has just been decided in the Fourth District Municipal Court of the City of New York which is of the utmost importance as regards the employment of children in factories. This is the case of the City of New York vs. The Chelsea Jute Mills. We have already referred to the way in which the child labor law has been violated ever since its first enactment in 1886, through the use of false affidavits of age. The difficulty has always been, as has already been pointed out, that the courts recognized the parent's affidavit as conclusive evidence of the age of a child, and so long as parents were willing to perjure themselves in order to secure employment for their children, no way was found to prevent the employment of large numbers of children under the age of fourteen years. The factory inspectors were powerless. For no matter how obviously under age a child might be, so long as it was provided with the required certificate, the factory law was not violated.¹

We have shown how the attempts to correct this evil through prosecution of parents for perjury and notaries for making false affidavits proved utterly ineffectual, and have shown how the law of 1903 overcame the difficulty once for all by refusing to recognize the parent's statement as evidence of age.¹ The law of 1903, however, as interpreted by the authorities who enforce it, is not retroactive. There are therefore many children employed at present who are provided with the old certificates, many of them based on false affidavits of age, but who are nevertheless held to be legally employed under the factory law.

¹ See pp. 59-62 ; 71-78.

The present case was instituted to determine whether or not anything could be done regarding these children, and was brought, not under the factory law, but under a section of the compulsory school law, which as amended in 1903 reads as follows :

It shall be unlawful for any person, firm or corporation to employ any child under fourteen years of age in any business or service whatever, during any part of the term during which the public schools of the district in which the child resides are in session, and any person who shall employ any child contrary to the provision of this section shall, for each offense, forfeit and pay to the treasurer of the city or village, or to the supervisor of the town in which the child resides, a penalty of \$50.

We have already spoken of the conditions in the Chelsea Jute Mills early in the year 1903, and of the large number of children twelve and thirteen years of age employed there, all fitted out with the required certificates containing affidavits of ages varying from fourteen to sixteen years.

One of these children, Annie Ventre, was selected to test the law. She was twelve years old on July 29, 1903. She began to work in the factory on April 7, 1903, and continued until the day preceding the trial, working ten and a half hours a day. When she applied for work on April 7, 1903, she said that she was "sixteen years passed" and presented an affidavit signed and sworn to by her father stating that she was born "on April 4, 1887, and that she was sixteen years old on April 4, 1903." At the trial the father testified that this affidavit was false and that the child was twelve years old on July 29, 1903. The mother testified to the same effect. It was admitted that the public schools of the city had been in session during the period while the child was at work.

The case was tried on February 18, 1904, and decided on March 24. The facts as stated above were not disputed and the issue was joined squarely ; first, as to the constitutionality of the statute and, second, as to the value of the false affidavit as evidence of good faith and absence of intent to violate the statute on the part of the employers. On both of these points the Court held in favor of the plaintiff. Judge Roesch in a long and exhaustive opinion, holds that the filing of an affidavit, stating that a child is fourteen years of age or over, does not release the employer from responsibility for violation of the law in case the affidavit is false and the child is actually under the statutory age. "The present statute is absolute. It must necessarily be so to accomplish its object. The employer acts at his peril. The fact of employment makes him liable."

As to the constitutionality of the law which was attacked as being "an unwarranted, illegal and unconstitutional deprivation of the liberties of the defendant," the opinion holds that the law is a proper exercise of the police power of the state, that it puts no unnecessary restriction on freedom of action, since "it would be impossible otherwise than by an absolute prohibition of employment of all children under fourteen years of age to accomplish its beneficent ends," and does not constitute any improper infringement of the rights of parent or child. The constitutionality of the law is therefore sustained.

The importance of this decision can scarcely be overestimated. To have declared this section of the school law unconstitutional would have been a most serious backward step, and such a declaration would doubtless have been speedily followed by a similar decision regarding the corresponding prohibition of the factory

law. On the other hand, the definite placing upon the employer of the responsibility for employing a child actually under the fourteen year limit is a long step forward, since it renders practically valueless the false affidavit of age by means of which so many young children have hitherto obtained employment. The importance and value of the decision are further increased by the fact that the Chelsea Jute Mills Company, who are the defendants in the case, have decided not to appeal from the finding of the Court, but to accept the decision and to co-operate with the Board of Education by means of a joint committee, in the weeding out from the mills of all children at present employed in violation of the law.

This cheerful acceptance of the decision, of course, applies only to this one company. There are numerous other employers who are violating the law in the same way, and it is quite probable that some one of them will sooner or later take occasion to carry a similar case to the Court of Appeals for final decision. It is believed, however, that in such an event, the law would be sustained by the court of last resort. As a matter of fact, the decision in the Chelsea Jute Mills case has had a most salutary effect upon other employers, many of whom are making inquiries regarding the exact provisions of the law and are looking into the conditions under which children are employed in their establishments. The Chelsea Jute Mills case was given wide publicity through the press of New York and other states, and through the work of the New York Child Labor Committee, and its effect upon employers and the public mind at large is bound to be considerable.

Two other cases involving interpretation of the factory law have been passed upon by the Appellate Division,

which are of less importance than the cases considered above, but which nevertheless require some mention in this chapter.

In the case of *Foster vs. The International Paper Co.* (21 App. Div. 47) it was held that an employee injured while engaged in installing new machinery in a factory, had no case against his employer on account of the absence of guards on the gearing of the machinery which he was installing. The court held that "the labor law does not require an employer to cover or guard machinery in the course of construction, so that persons engaged in the construction of it will not be injured."

The other case involves the application of the law regarding fire-escapes to factories in the city of New York. Under Chapter 462 of the Laws of 1887, the state factory inspector had exercised the power of ordering fire-escapes on the factories in New York City the same as in other parts of the state, but from a time previous to the enactment of the factory law, the superintendent of buildings of New York City had exercised similar jurisdiction over the matter of fire-escapes on all buildings in the city, including factories. The trustees of the Sailors' Snug Harbor owned a factory building in New York City and were directed by the superintendent of buildings to erect a fire-escape of a particular pattern. They refused to obey the order of the superintendent on the ground that sections 82 and 83 of the factory law placed the matter of fire-escapes on factories under the jurisdiction of the state factory inspector. The case came before the Appellate Division in July, 1903, (85 App. Div. 355), and the court held that the municipal authorities had exclusive jurisdiction over the matter of fire-escapes within the city of New York, the intention of the factory law being to ex-

cept that city from the provisions of sections 82 and 83 which relate to fire-escapes.

This decision, however, still left untouched a clause in section 62, which provides that the factory inspector shall have the power to enforce "Any municipal ordinance, by-law, or regulation relating to factories or their inspection." In order to settle the question whether or not this section gave him authority to require the erection of fire-escapes in New York City under the municipal ordinance, the commissioner of labor asked the advice of the attorney general, who stated that in his opinion section 62 was not meant to apply to the city of New York. This decision and opinion seem to take away from the factory inspectors all authority over the regulation of fire-escapes on factories within New York City.

PART II. — ADMINISTRATION AND RESULTS

CHAPTER VIII

INTRODUCTORY

In Part I the history of the enactment of the factory law has been traced. The following chapters will be devoted to results. We shall not attempt to discover every possible effect which may be traceable to the factory law. The law was enacted for the accomplishment of certain purposes, and in the main the study will be directed with the object of determining whether or not these purposes have been accomplished. There are certain other lines of investigation which might perhaps suggest themselves, such as the effect of the factory law on wages and on the manufacturing industries of the state. But it is believed that such lines of investigation are at best of doubtful value. It is quite likely that the factory law has had some indirect influence on wages, and on the general condition of industries. These are matters however, which involve so many causes, many of them of far greater weight than the question of factory legislation, that the attempt to show just what has been due to the factory law seems scarcely worth while.

Just a word may be said in dismissing this subject. At the time when the first factory act was being agitated the strongest argument brought by the opponents of any such legislation was that the industries of the state would be crippled or driven to other states. Whatever may be said of the positive results of the law, certainly no one could claim that the factory law has resulted disastrously upon the manufacturing industries of the

state. They have gone on increasing and prospering as before.

The New York factory law is administered by special state officers. The first law in 1886 provided for the appointment of a factory inspector and one assistant, charged with the duty of enforcing the law, and reporting annually to the commissioner of labor statistics. The next legislature provided for the appointment by the factory inspector of eight deputies to assist him in enforcing the law. Since then the force of deputies has been increased from year to year and at present numbers fifty. Women inspectors were first authorized in 1890, the number allowed in that year being eight. At present ten of the fifty deputies may be women.

The experiment of having the factory inspector report to the commissioner of labor statistics was given up after one year's trial, and in 1887 the factory inspector was made an independent officer reporting directly to the legislature. The factory inspector's office continued independent until 1901 when the present department of labor was organized by consolidating the formerly existing bureau of labor statistics, office of factory inspector, and board of mediation and arbitration. Since then the business of factory inspection has been under the charge of the first deputy commissioner of labor. The motive for this consolidation was to economize in the expense of administration. Apart from the possible saving of expense there is very little to commend this action. The business of gathering statistics is an entirely distinct one from that of enforcing the law in factories, and each must interfere with the other when carried out under the authority of a single officer. In theory certainly the two departments should be entirely independent. In practice the work of the

factory inspectors in New York has been more or less interfered with. Inspectors appear quite often more anxious to secure the information desired by the statisticians of the department than to see that the factory law is enforced.

Complaints are constantly being made claiming lack of efficiency of the factory inspection department. It is not the plan of this paper to discuss the efficiency of the officials who have the administration of the law in charge. There can be no doubt that an improvement could be effected if the department could be removed from political influence and doubtless a more efficient corps of inspectors could be obtained if larger salaries were authorized. At present the salary of a deputy is twelve hundred dollars a year.

The administration of the law is assisted to a certain extent by the trade unions of the state and by certain philanthropic organizations, generally the same ones which have been active in securing the enactment of the laws. There is not, however, the best of feeling between the state officials and these outside agencies. The leaders of both labor unions and philanthropic societies are constantly finding fault with what they consider the inefficiency and dishonesty of the factory inspectors. The latter are irritated by what they consider interference on the part of these organizations and failure to understand the difficulties against which they contend. This causes more or less friction which serves to prevent the most effective co-operation between the various agencies interested in the enforcement of the law. The same lack of proper understanding and co-operation has existed to a greater or less degree between the factory inspector's department, the public school officials, and the health officers, all of whom are

concerned with enforcing parts of the factory law. Improvement in this respect can be noticed in recent years and the result is bound to be a more intelligent and effective administration.

The best manufacturers of the state are generally in sympathy with the purposes of the factory law and have little fault to find with its provisions. It is only the small minority which shows any tendency to violate or evade the law.

For convenience in administration the whole state was divided in 1887 into eight districts, and one district was placed in the charge of each of the eight deputy inspectors. A list of the counties in each district with a map showing the boundaries is given in the Appendix.¹

¹ See Appendix, pp. 175, 176.

CHAPTER IX

CHILD LABOR

Introductory—The most important part of the factory law is undoubtedly that which relates to the employment of children in manufacturing establishments. It was here that the need for legislation was greatest, and it is here that the results of the factory law are most apparent and far-reaching. It is the purpose of this chapter, first, to describe the extent and conditions of child labor previous to the enactment of the first factory law, and then to show what changes have been brought about through the influence of the law. This chapter will be limited to those parts of the factory law which relate specifically to children under sixteen years of age. Those parts of the law which relate to all employees alike will be discussed in a later chapter.

Conditions of Child Labor Prior to 1886.—Before the enactment of the first factory act in 1886, child labor in the factories of the state was practically unregulated.¹

In regard to conditions at this time we have testimony from a number of different sources. The most important evidence is probably that contained in the second annual report of the New York bureau of labor statistics. The commissioner of labor statistics devoted practically the whole of the year 1884 to an investigation of child labor in the state, and the results of this study, published in the report for 1884, tell a great deal about early conditions. Some testimony also is furnished in the early reports of the state factory inspector. There is also an occasional item from newspapers of the time,

¹ See Chapter I.

and here and there a note from the reports of charitable organizations especially interested in the welfare of children. The writer has also some information from personal interviews with those whose memories extend back to this time.

The evidence from all these sources makes certain facts very plain. The employment of children of tender ages throughout the state was general and widespread. The commissioner of labor statistics took testimony and investigated conditions in Cohoes, Amsterdam, Little Falls, Utica, and New York Mills, all being typical up-state mill towns. The testimony of employers, employees, physicians, clergyman, city officials, and of the children themselves was taken. The fact that children under fourteen were being employed was admitted practically by everyone. The few manufacturers who tried to take only those over fourteen years of age were rare exceptions. The children employed generally ranged in age from eight to fifteen years, though it was not uncommon for them to commence work even younger. Hundreds of children of these ages could be seen every morning and night going to and from the factories. A dozen of the younger children were stopped as they were coming out of one of the mills and questioned as to their ages. The oldest was thirteen. Others were ten, eleven and twelve years of age. Most of them had been at work for more than a year. One child eleven years old had been at work five years. Of a similar group at one of the mills in Utica the oldest was fourteen years of age, the others ranging from ten to fourteen. Several of these children also started work at the age of eight or nine.¹ Much more testimony of this sort is presented in the report of the commissioner

¹ N. Y. bur. labor stat., 1884, pp. 277-286.

of labor statistics but it will be unnecessary to go into this evidence in detail. The towns studied represent typical up-state mill towns. Evidence of the same sort is given in this report regarding child labor in New York City. The employment of children from eight years old up was very general in all kinds of occupations. Children commenced working in the gas houses at eight, nine, and ten years of age. In the cruller bakeries of New York City little children from nine to thirteen years of age worked all night, getting what little sleep they could in the shops during the day time.¹ The commissioner stated that from 1500 to 2000 children under fifteen years of age were employed in the manufacture of paper collars alone in New York City.² A number of witnesses testified regarding the employment of children in cigar factories. There was complete agreement on the fact that practically all factories employed children from nine years of age up, the proportion ranging from five to twenty-five per cent. of the whole number of workers. Agents of the Children's Aid Society found children only four years of age thus employed. Numerous other occupations were dependent on the labor of very young children. Many children were engaged in making artificial flowers and feathers and in the candy factories. The jute and hemp mills, pencil factories, paper box and button works, ink factories, etc., showed a similar large employment of young children.³ The factory inspector stated that before the factory law went into effect thousands of parents allowed their children to grow up without education, placing them in the mills sometimes at eight years

¹ N. Y. bur. labor stat., 1884, p. 155.

² N. Y. bur. labor stat., 1884, p. 292.

³ N. Y. bur. labor stat., 1884, pp. 181, 292.

of age and very frequently not later than their tenth or eleventh year. "It was not uncommon," states the inspector, "for children seven and eight years old to be seen trudging before daylight to the factory and after twelve hours of steady work and confinement trudging back to their homes after dark."¹ The statement was made to the writer by a man who was active in the work of securing the first child labor law, that before the passage of the law children six years old and up were working sixty-six hours a week very commonly.

The factory inspector estimated that 8000 children under thirteen years of age were excluded from the factories of the state during the first year of the enforcement of the factory law,² and of course the number thus excluded must have been only a small proportion of the whole number employed. The statement was made by the proprietors of the largest cotton mill in Cohoes that more than 200 children under the age of thirteen were discharged from their establishment alone when the law went into effect, and when the inspector visited the establishment he found a large number of children under thirteen still employed. At that time, out of a total of 3200 employees in this mill, 1200 were children under sixteen.³ During the first year of the enforcement of the factory law the inspector found numerous children who had just passed the legal age of thirteen years who had been in factories five and six years and had never been to school. In some of the mills even the height of the machinery was regulated to the stature of the young children employed. One employer told the inspector that he could not get so

¹ N. Y. fact. insp. rep., 1886, p. 17.

² N. Y. fact. insp. rep., 1886, p. 35.

³ N. Y. fact. insp. rep. 1886, p. 13.

much work out of a fifteen year old boy as he could out of one twelve years old because the former had to stoop so much in operating the machine.¹ More testimony of this sort might be produced from the reports of the commissioner of labor and the factory inspector.

The evidence here given is borne out by a personal visit to Cohoes made by the writer. Nearly a week was spent in Cohoes and the vicinity, and the writer talked with a number of persons who remembered the time when it was a common sight to see crowds of little children seven and eight years of age going to and from the factories every morning and evening. Occasional reference to the general and widespread employment of young children is also to be found in the newspapers during the ten or twelve years preceding 1886. Enough evidence of this sort has probably been given to establish the general and widespread employment of children from seven or eight to fourteen years of age in the factories of the state. Satisfactory figures showing the number of children thus employed are not available. According to the United States census, however, there were in 1880, 24,618 children between the ages of ten and fifteen employed in manufacturing, mechanical, and mining industries in the state of New York.² The census of 1900 reports that in 1880 the average number of children under sixteen employed in the manufacturing and mechanical establishments of the state was 29,529.³ These figures will be produced again below.

The young children employed in factories worked in

¹ N. Y. fact. insp. rep. 1886, p. 17.

² U. S. census, 1880, Report on population, p. 722.

³ U. S. census, 1900, Vol. VIII, p. 580.

general eleven hours a day. This was the normal workday in the up-state towns investigated by the commissioner of labor statistics in 1884. In New York City the hours were from nine to eleven a day. A twelve-hour day was by no means uncommon in many parts of the state.

The result of this extensive employment of young children was evident in the physical condition and lack of education of the children. A great deal of testimony is at hand from physicians and others as to the injurious effects of factory labor upon the young children employed, and from all sources comes evidence regarding the ignorance and lack of intelligence shown by the little factory workers. It was exceedingly common to find children employed in the mills who were totally illiterate, and many children grew up without ever having attended school. A group of twelve children ranging in ages from ten to thirteen years was stopped and questioned by the commissioner of labor statistics as they were leaving one of the Cohoes mills. Only two of these children reported definitely that they had attended school more than one year.¹

In summing up the evidence, therefore, we may state that previous to 1886 the employment of children between the ages of seven or eight and fourteen years was quite general throughout the state, that the children worked usually eleven hours a day, sometimes even longer, that many children were growing up with practically no school education, and that the result upon the physical and mental condition of the children thus employed was most serious.

Results of the Factory Law: General Testimony.
The first factory law was passed on May 18, 1886. It

¹ N. Y. bur. labor stat., 1884, pp. 277-281.

prohibited absolutely the employment of any child under thirteen years of age in any manufacturing establishment. Children under sixteen years of age were required to present a certificate of age verified by the parent or guardian, and the employer of children under sixteen was required to keep a record of all such children. The law of 1886 likewise made it illegal to employ any minor under eighteen years of age, or any woman under twenty-one, more than sixty hours in a week, except for the purpose of making necessary repairs.

Since 1886 numerous other restrictions upon the employment of children have been added to the factory act. In 1889 the age limit was raised to fourteen years and night work was prohibited, and in 1896 board of health certificates were required for all children employed between the ages of fourteen and sixteen. Beginning in 1889, the employment of children under sixteen years of age has also been restricted from year to year by more and more stringent educational requirements. The employment of children on dangerous machinery has likewise been forbidden.

It will be unnecessary at this point to go further into the details of the child labor law. The law aims, first, to prohibit entirely the employment of children under the age of fourteen years (or thirteen, according to the law in force until 1889); and, secondly, to limit the employment of children under sixteen years of age to those who can satisfy certain educational requirements and are physically able to perform their work. It is intended also to limit their labor to ten hours per day and to sixty hours per week.

In the endeavor to show the actual results of the factory law on the employment of children throughout the

state, we have in the first place a mass of evidence from the reports of the factory inspector. A large part of this evidence is of doubtful value, consisting of the most general statements, representing merely the personal opinions of the inspectors, and not based on any conclusive evidence from statistics or elsewhere. For example, we have such statements as this: The deputy inspector for district VI reported in 1888¹ that only two or three children had been found and that those were in factories not visited before. In the same year the inspector for district V reported that in places previously visited no children were found under thirteen, and during the entire year only five were found.² The same deputy reported the year before that "the employment of children under thirteen in factories has been entirely abolished, and between the ages of sixteen and thirteen years has been somewhat diminished."³ The state factory inspector reported in 1887 that although the law had been in force not quite a year and a half, "the resulting benefits are apparent in every manufacturing city and village in the commonwealth.

. . . Thousands of children who have been driven or thrown into the hard daily grind of mill life, were set free to enjoy a little sunshine and obtain the rudiments, at least, of an education; manufacturers were required to employ an older class of help and pay them a higher rate of wages; and worthless fathers were forced to work and support their children, instead of obtaining support from their offspring."⁴ In 1887 the deputy inspector for district VII estimated that the employment

¹ N. Y. fact. insp. rep., 1888, p. 93.

² N. Y. fact. insp. rep., 1887, p. 90.

³ N. Y. fact. insp. rep., 1887, pp. 108-111.

⁴ N. Y. fact. insp. rep., 1887, p. 29.

of children had been reduced at least 25 per cent. in his district, while the deputy for district VI estimated a reduction of 30 per cent.¹ The next year the former deputy estimated that the decrease amounted to 50 per cent.² and for the whole state the factory inspector estimated that there was 30 per cent. less child labor than existed three years before.³

Any number of such general statements as these might be cited. The few which we have given above are presented for what they are worth, and as examples of what may be found on page after page of the annual reports of the factory inspector.

On one point, however, the testimony of the factory inspector's report is more definite, and that is the question of school attendance. In 1887 the deputy inspector for district V states that he has made inquiries throughout his district and "finds that the attendance at the schools has materially increased the past year. The report of Edward Smith, superintendent of public schools at Syracuse, shows that up to July 1, 1887, there were registered 12,320 pupils, an increase over the year before of 2121; from Oswego I also received information of an increase, and when the children making application for permits were questioned why they had not been at school the reason given was that they had been working, and as they could work no longer they wished to attend school."⁴ In the same year the report of the president of the Board of Education of Cohoes showed that the registered attendance at the day schools of that place had increased from 2824 to 3065 during the first year of the enforcement of the factory law, an increase

¹ N. Y. fact. insp. rep., 1887, pp. 108-111.

² N. Y. fact. insp. rep., 1888, p. 95.

³ N. Y. fact. insp. rep., 1888, p. 31.

⁴ N. Y. fact. insp. rep., 1887, p. 108.

of nearly 10 per cent. From 1887 to 1888 the school attendance at Rochester increased from 12,341 to 13,330, an increase of 989 in one year. Five schoolhouses in this city had to be enlarged to accommodate the increase, and the schools were still reported overcrowded.¹

In 1889 it was reported by teachers and school superintendents in different parts of the state that the factory law had had an appreciable effect upon school attendance. Many children acknowledged that they would be in the factories instead of at school except for the law. In the same year the deputy inspector for district II reported that immediately after the passage of the law in 1889 which raised the age limit to fourteen and required an educational test for children under sixteen, there came a demand for school accommodations, and that although several new schoolhouses were erected during the year, the number of children debarred from attending school by lack of accommodations was greater than ever before.² From different parts of the state came reports of the opening of night schools as a result of the law of 1889. The inspector for district VII reported in 1889 that in Rochester there were at present six night schools, all over-crowded, where formerly there was only one.³

The state factory inspector, in his report for 1895, states that a great decrease in illiteracy has occurred since 1886. "Illiteracy may exist," he says, "but it is no longer the rule among minors in factories." Immediately after the law was amended in 1889 requiring an educational test for children under sixteen, "there was found a lack of school room in every manufacturing center, and in the villages where the children formerly

¹ N. Y. fact. insp. rep., 1888, p. 95.

² N. Y. fact. insp. rep., 1889, p. 63.

³ N. Y. fact. insp. rep., 1889, p. 74.

filled the factories, they soon filled the school-houses. In one candy factory alone ninety illiterate children were discharged. The subject of education and compulsory attendance at school became prominent, and the employment of children was not nearly so prevalent. A demand for more schools went up all over the state. Parents who had neglected the education of their children were now forced to give it attention, when they found that the children were debarred from factory employment until they were sixteen years of age unless they had the rudiments of an education."¹

Another point on which the statements of the factory inspector are very decided is in regard to the decrease that has taken place in the employment of children under the age of sixteen years, owing to the requirement by the law of the filing of certificates, the keeping of a record book by the employer, the posting of the hours of labor, and a number of other troublesome regulations. Many manufacturers seem to have preferred to hire only children over sixteen years of age rather than be bothered by all these annoying regulations. Statements to this effect are made in every report of the factory inspector.

All this evidence from the reports of the factory inspector must be taken with a certain discount. Where definite figures are given, as in the case of the statements regarding the increase in school attendance, they can probably be relied on. But the majority of the statements are merely expressions of personal opinion, and some allowance must be made for the point of view of the factory inspector. He may perhaps be pardoned for taking a somewhat optimistic view of the results of his work of enforcing the law. At any rate many of

¹ N. Y. fact. insp. rep., 1895, pp. 23-24.

the statements made are obviously exaggerated and statements in the different reports are sometimes contradictory. Still even the expressions of opinion, admittedly somewhat biased, of the officials charged with the enforcement of the law are worth something as evidence, and taken in connection with the other testimony which will be presented they add strength to our conclusions as to the results of the factory law.

In order to satisfy himself as to the results of the law as shown by actual conditions to-day in the factories of the state, a personal investigation was made by the writer. About one week was spent inspecting factories in New York City, and an equal time was devoted to the factories in the up-state cities of Albany and Cohoes. Particular care was taken to notice all children apparently too young for legal employment. In New York City something more than forty establishments were visited, and not a single child was seen who appeared to be under the legal age of fourteen, although three or four were found without the required certificates. Of course too much weight must not be placed on such limited testimony as this. Everyone who is at all familiar with the conditions knows that there are establishments in New York City which are employing young children in violation of the spirit if not the letter of the law. One or two such individual cases have been mentioned above, and numerous other cases have come to the attention of the writer indirectly. Only a careful investigation of every factory in the city would enable one to say just how much of this there is. In spite of all this, however, there seems no reason to doubt that as a general rule there is no great or widespread employment of children under the legal age in the factories of the city. While the conditions of employment are

by no means ideal, especially in the matter of toilet facilities, still very few cases were found by the writer in which children seemed to be engaged in dangerous or unhealthy occupations. This testimony again is limited in its extent and is given only for what it is worth.

The city of Cohoes, situated on the Mohawk River a few miles from Albany, was selected for special investigation for a number of reasons. In the first place, Cohoes is one of the most representative factory cities of the state, containing a number of the largest textile mills in the state of New York. It is, moreover, in such mills as these that the labor of children has been very extensively employed. Again, the city of Cohoes affords a good field for investigation, owing to the fact that in the years before the passage of the factory law the child labor problem was here present in its most serious form. Indeed, with the exception of New York City, the factory inspectors have probably had more trouble with the enforcement of the child labor laws in Cohoes than in any other city of the state. We therefore have a considerable amount of material on early conditions in Cohoes which makes possible a comparison with conditions as they are to-day. As in New York City, the writer devoted special attention to securing evidence as to the extent of child labor and the ages of children employed. Conversations were had with the proprietors or managers of three or four of the largest mills, including the plant which employs the largest number of children. Information was also obtained from employees and from various citizens not connected in any way with the factories. A number of boys met at random on the street were questioned as to what they knew about children employed in the mills. Information

gathered from these sources was supplemented by personal inspections covering three or four of the largest factories from top to bottom, and also by watching the employees entering or leaving the mills.

As was to be expected some contradictory evidence was secured. A foreman in one of the woolen mills said that in one of the largest cotton factories of the city there were whole rooms full of children twelve and thirteen years of age, who worked from seven o'clock in the morning to half past six in the evening during the winter months, commencing work an hour earlier in the summer. These children were concealed or sent out of the building whenever the factory was visited by an inspector. Word was sent through the building in advance of the inspector's visit and it was an easy matter to get the children out of the way. Practically the same statement was made to the writer by a boy who used to work in this mill, and two other boys said that this mill had about fifty children under fourteen years of age who were hustled out of the way whenever the inspector came.

On the other hand these statements were denied by a number of persons who were questioned. One boy who said that he worked in the mill in question denied that there were any young children there under fourteen years of age. A long talk was had with the manager of this mill who stated that no children under fourteen years of age were employed to his knowledge, although he admitted that there might be an occasional case where parents had sworn falsely to a child's age. He stated that the company was finding it to their advantage to employ older children, that they preferred to have those who were over sixteen years of age. A number of other persons were questioned, none of whom

seemed to believe that there was any extensive employment of young children in this or other mills of the city. The writer did not see the children at work in this mill but on several occasions was at the gate as they were going in and out, and he failed to see more than two or three who appeared to be younger than fourteen or physically unfit for factory work. A number of children were questioned as to their ages and as to the ages generally of children in the mills, all of whom spoke of how difficult it was for a child under fourteen to keep his place in the mill for any length of time. One boy who was questioned had tried it himself and had been caught by the truant officer in short order. This establishment was admittedly the one in which young children would be found employed, if anywhere. The woolen mills of the city employ an older class of help, and the evidence of all persons interviewed, as well as the personal investigation of the writer, would seem to show conclusively that there is no extensive employment of young children in these mills.

Further testimony as to the extent of child labor in Cohoes was obtained from the superintendent of public instruction, who stated that the factory and school laws had brought about a great reduction of child labor and a consequent increase in school attendance. He stated that the population of Cohoes was about 24,000. The school population between the ages of five and eighteen according to the last census was 5878. During the school year ending July 1, 1903, there were registered in the public schools 2823 pupils and in the parochial schools 1833, making a total of 4656. According to these figures about eighty per cent of all children between the ages of five and eighteen were registered in the schools of the city. This is in marked

contrast with the report of the president of the Board of Education of Cohoes for the year 1887. At that time the number of children of school age was 7491, while the number registered in the day schools of the city was only 2824. These figures are not exactly comparable, from the fact that in 1887 the term "of school age" included all children between the ages of five and twenty-one, while at present only those between five and eighteen are included. A comparison of the two sets of figures, however, shows a most remarkable increase in school attendance. Again, during the past ten years the attendance at the public schools at Cohoes has increased slightly. In the meantime two parochial schools have been started, having at present an attendance of more than half that of the public schools. During this period the population of the city has grown by only a few hundred. This fact also shows a steady increase in school attendance.

From testimony given above and more of the same sort which might be included, the writer is firmly convinced that there can be no general violation of the factory law by the employment of young children in the city of Cohoes and that a remarkable change in this respect has taken place through the influence of the factory law. The importance of this conclusion is increased by the fact that Cohoes is one of the most important manufacturing cities of the state and one in which the child labor evil has in times past been most serious.

Decrease in Child Labor.—Thus far the evidence presented to show that the factory law has been effective in reducing child labor throughout the state has been of a general character. In this section evidence from statistics will be produced to show the same result.

Plenty of testimony has been given to show that large numbers of young children were employed in factories previous to the enactment of the first factory law in 1886. The law absolutely forbade the employment of all children under fourteen years of age (thirteen under the first act). The result is said to have been a large decrease in child labor. The law also places numerous restrictions upon the employment of children under sixteen years of age, and the statement is very commonly made that a great many employers have given up hiring children under that age, rather than go to the annoyance of complying with all the legal regulations necessary for their employment. If the law has been effective, it should be possible to verify these statements by statistics showing a positive decrease in child labor during the years that the factory law has been in force.

The table below has been compiled from the United States census.¹

AVERAGE NUMBER OF EMPLOYEES—1850-1900.

	1850	1860	1870	1880	1890	1900
Number (in thousands)						
Total.....	199	230	352	532	752	849
Men 16 years and over ..	148	177	267	365	545	606
Women 16 years and over ..	52	53	64	137	194	230
Children under 16.....	*	*	21	30	12	13
Percentage.						
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Men 16 years and over ..	74.1	76.9	76.0	68.6	72.5	71.3
Women 16 years and over ..	25.9	23.1	18.1	25.9	25.8	27.1
Children under 16.....	*	*	5.9	5.6	1.6	1.6
Percentage of increase.						
Total.....		15.4	52.9	51.1	41.5	12.9
Men 16 years and over ..		19.7	51.2	36.3	49.6	11.0
Women 16 years and over ..		3.1	19.9	115.5	41.4	18.4
Children under 16.....		*	*	43.2	-58.5	7.6

The above table gives the average number of employees in the manufacturing and mechanical establishments of

¹ U. S. census, 1900, Vol. VIII, p. 580.

* Not reported separately.

the state of New York during each of the census years from 1850 to 1900. In addition to the total number of employees, the table shows also the number of men sixteen years of age and over, the number of women sixteen years of age and over, and the number of children under sixteen. The table gives also the percentage of employees in each group and the percentage of increase of each group from decade to decade. Children were not enumerated separately until 1870. In 1870 the number of children employed was 20,627, which increased to 29,529 in 1880, then dropped to 12,263 in 1890. In the next ten years the number rose slightly, being 13,139 in 1900. We have here a most remarkable decrease in child labor between the years 1880 and 1890, during which period the first factory act was passed which forbade the employment of children under 13 years of age, and restricted the employment of women under 21 and males under 18 to sixty hours a week, besides requiring the keeping of a register of all children under 16 years of age and the posting of the daily hours of labor for women under 21 and minors under 18. With the exception of the period between 1880 and 1890, the employment of children has been increasing, particularly so between 1870 and 1880. It should be borne in mind in this connection that new restrictions have been placed on the employment of children almost yearly since the enactment of the first law in 1886. Particularly important was the amendment of 1889, which raised the age limit from 13 to 14 years.

So much for the absolute figures. Taking the relative employment of children as compared with men and women, we see the same result brought out very strik-

ingly. In 1870 children formed 5.9% of the total number of employees. In 1880, 5.6%, a very slight decrease. In 1890 the percentage had dropped to 1.6, and it was at the same figure in 1900. From 1870 to 1880 the number of children employed increased by 43.2%, while from 1880 to 1890 there was a decrease of 58.5%, there being a slight increase in the next ten years of 7.6%.

We thus see that the number of children employed dropped more than half in the ten years between 1880 and 1890, during which period the employment of children decreased from 5.6% of the whole number of employees to 1.6%. Of course we must not make the error of crediting the whole of this enormous falling off in child labor to the factory law. Indeed some of the decrease may be only apparent. Different methods of handling the figures in the several census years may have had something to do with the result. Again false statements of parents, employers, and children may be partly accountable for the falling off in 1890 and 1900. While the census enumerators are entirely distinct from the state officials who administer the school and factory laws, it is still very probably that ignorance of this fact or the attempt to be consistent has led to a good many false statements of age. Full weight should be given to these disturbing factors; still it does not seem likely that they have been of sufficient importance to very seriously affect the reliability of the figures. We shall still have an enormous decrease in child labor since 1880, and after making due allowance for other causes there can be no reason for doubting that the factory laws have played an important part in bringing about this remarkable result.¹

¹ For a more complete analysis and discussion of these statistics, see the U. S. census, 1900, Vol. VII, pp. cxxv-cxxxiii.

Evidence showing the reduction in the employment of children under sixteen years of age is furnished by the statistics of the state factory inspector published in his annual reports. A summary of these statistics for the whole state is given in the table on the following page. Similar tables for each of the eight districts into which the state is divided will be found in the Appendix, from which the percentages of children under sixteen have been taken to form the table on page 130.¹

The figures in the two tables following speak for themselves. Taking the state as a whole, the percentage of children under sixteen years of age found employed in manufacturing establishments has fallen from 8.4 in 1887 to 2.1 in 1903. These statistics begin in 1887, the second year of the existence of the factory law. The decrease shown, therefore, is in addition to the great reduction which took place during the first year of the operation of the law. No corresponding figures are available for the years preceding the enactment of the law, but the factory inspector has estimated that for the five months from July 5 to November 30, 1886, the percentage of children under sixteen was 12.5.² Turning to the eight districts into which the state is divided, we see much the same movement in each district.³ With the exception of districts I and VI, the percentage of children under sixteen employed in each district was in the neighborhood of 9 or 10 in 1887 and has fallen to 2 or 3 in 1900. District I, which comprises Brooklyn

¹ For the absolute numbers by districts and the general discussion and criticism of these statistics from the factory inspector's reports, see Appendix, pp. 174-187.

² N. Y. fact. insp. rep., 1901, p. 135.

³ For a list of counties contained in each of the eight districts, see Appendix, p. 175. See also map on p. 176.

AVERAGE NUMBER OF EMPLOYEES, STATE OF NEW YORK

YEAR	Number of fac- tories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent of females	Per cent of children under 16
1887	2,178	104,623	64,828	12,049	21,661	7514	6695	14,209	169,451	38.3	8.4
1888	4,731	172,235	105,187	18,625	39,200	9485	8953	18,438	277,422	37.9	6.6
1889	5,111	177,143	100,064	18,547	35,341	8198	7116	15,314	277,207	36.1	5.5
1890	6,190	210,452	116,426	19,878	40,118	7694	6975	14,669	326,878	35.6	4.5
1891	10,097	281,517	140,553	22,923	48,774	9470	8025	17,495	422,070	33.3	4.1
1892	9,570	243,114	131,252	19,281	48,468	7475	6630	14,105	374,366	35.1	3.8
1893	11,038	277,529	138,708	19,986	48,948	7204	6660	13,864	416,237	33.3	3.8
1894	12,886	310,264	150,662	19,785	55,231	6556	5980	12,536	460,926	32.7	2.7
1895	19,178	385,346	173,588	21,755	57,170	6780	6904	13,684	558,934	31.1	2.4
1896	18,854	381,909	166,321	19,815	56,385	5528	6803	12,331	548,230	30.3	2.3
1897	15,012	369,496	137,401	18,926	45,980	4854	4673	9,527	566,897	27.1	1.9
1898	17,099	402,238	160,605	20,141	52,184	5270	6078	11,348	562,843	28.5	2.0
1899	20,116	464,979	182,530	20,375	—	7325	7135	14,460	647,509	28.2	2.2
1900	21,027	484,029	183,799	22,069	—	7769	7203	14,972	667,828	27.5	2.2
1901*	22,516	446,923	199,904	17,870	—	7243	7654	14,997	646,827	30.9	2.3
1902*	28,614	540,459	234,331	20,685	—	8564	8206	16,770	774,790	30.2	2.2
1903*	34,235	611,792	260,598	24,500	—	9058	9102	18,160	872,390	29.9	2.1

* The figures for 1901-1903 do not include children under 14 years of age. There were of these in 1901, 212; in 1902, 295; and in 1903, 460. The figures for 1901 cover only the ten months from December 1, 1900, to September 30, 1901, owing to a change in the official year at the time of the consolidation of the department of labor.

AVERAGE NUMBER OF EMPLOYERS—PERCENTAGE OF CHILDREN UNDER SIXTEEN

YEAR.	DISTRICT.	I	II	III	IV	V	VI	VII	VIII	STATE.
1887	-----	6.2	9.2	10.0	8.9	9.9	4.4	8.8	8.2	8.4
1888	-----	4.9	7.0	8.8	6.9	8.2	4.3	5.7	6.7	6.6
1889	-----	5.7	4.2	8.4	4.9	8.0	3.1	4.5	7.4	5.5
1890	-----	3.8	4.4	6.1	4.5	5.6	2.0	3.0	5.9	4.5
1891	-----	4.3	4.1	5.5	3.9	4.6	1.9	3.7	4.6	4.1
1892	-----	4.1	3.5	4.6	4.1	4.2	1.9	3.9	3.6	3.8
1893	-----	3.4	2.6	4.5	3.6	3.3	1.8	4.6	3.9	3.3
1894	-----	2.6	2.4	3.5	2.8	2.8	1.6	3.6	2.9	2.7
1895	-----	2.3	2.0	3.2	2.5	3.3	1.1	3.6	2.7	2.4
1896	-----	2.1	2.0	2.4	2.3	2.6	1.2	2.7	2.9	2.3
1897	-----	2.1	1.5	2.3	1.7	2.2	1.2	2.3	2.4	1.9
1898	-----	2.0	1.7	2.5	1.1	2.7	1.1	2.6	2.4	2.0
1899	-----	2.7	1.7	2.3	2.1	3.0	1.4	2.5	2.5	2.2
1900	-----	2.9	1.9	2.9	1.9	2.8	1.2	2.3	2.2	2.2

and the rest of Long Island, has apparently been less affected than the other districts. Only 6.2% of the employees in 1887 were children under sixteen, while in 1900 2.9% were children, being a larger proportion than in most of the other districts. District VI, which embraces the counties in the southern-central part of the state has had the least child labor of any of the districts during the whole period. The percentage was 4.4 in 1887 and 1.2 in 1900. Throughout the state in general the decrease in the relative employment of children was quite rapid during the first few years. The lowest point was reached in 1897. Since then the proportion of children has remained nearly constant, being slightly over two per cent.

In connection with these figures two facts should be borne in mind. In the first place it must be remembered that the figures given do not cover all the factories in the state but only those which were visited during a given year by an inspector. During the early years the force of inspectors was small and it was impossible to visit more than a small fraction of the manufacturing establishments of the state. Since then the number of factories visited has steadily increased and during the latter years the inspectors have planned to visit practically every establishment affected by the factory law at least once a year. This brings us to the second fact to be remembered. During the early years when it was impossible to visit all the factories of the state, the inspectors naturally selected for their visits those establishments employing the largest proportion of children and women and those in which they expected to find the most numerous violations of the law. This would, of course, operate to increase the relative number of children found employed during the earlier

years as compared with later years in which the inspections have included also those establishments employing few children or none at all. This circumstance is perhaps counteracted in some degree by the increasing number and experience of inspectors, enabling them more accurately to arrive at the ages of employees and making it harder for children employed to escape detection. Giving due weight to these circumstances we are still justified in regarding these figures from the factory inspector's reports as positive evidence showing a great decrease in the relative employment of children under the age of sixteen.

Effect of the Factory Laws on Illiteracy:—Theoretically the factory law ought to decrease illiteracy in two ways. In the first place, the chief excuse presented for non-attendance at school is that the children have to work. The desire for their earnings is the principal reason which leads parents to keep their children out of school. Where it is impossible for the children to work, they are pretty likely to be sent to school. The factory laws, in forbidding the employment of children under fourteen or thirteen should have the effect of sending more children to school and so decreasing the proportion of illiteracy in the population. In the second place, the law imposes certain educational requirements upon children under sixteen years of age. These restrictions should operate directly to reduce illiteracy. Statements are frequently made, especially by the factory inspectors, that the number of illiterate children found in factories has decreased enormously since the factory laws went into effect.

For direct statistical evidence on this subject we may turn again to the United States census. The table on the following page is compiled from the census reports of

ILLITERATE POPULATION, 10 YEARS OF AGE AND OVER, 1880-1900.

	Total		10-14 years		15-20 years		Over 20 years	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1880								
Aggregate	219,600	5.5	12,680	2.5	14,736	2.4	192,184	6.7
Native white	59,516	2.2						
Foreign white	148,659	12.5	12,152	2.4	13,973	2.3	182,050	6.4
Colored	11,425	21.2	528	9.7	763	10.9	10,134	24.5
1890								
Aggregate	266,911	5.5	7,669	1.4	16,115	2.8	243,122	6.6
Native white	57,362	1.8	4,200	0.9	5,400	1.1	47,762	2.1
Foreign white	198,136	13.1	3,087	5.4	10,173	11.8	184,876	13.5
Colored	11,413	18.4	382	6.4	542	8.1	10,484	21.2
1900								
Aggregate	318,100	5.5	4,740	0.7	19,526*	3.0*	293,834*	6.5*
Native white	47,350	1.2	1,491	0.3	3,236	0.6	42,623	1.5
Foreign white	258,423	14.0	3,084	4.6	15,677	13.0	239,662	14.5
Colored	12,327	12.8	165	2.3	613*	6.1*	11,549*	14.6*

*See note on next page.

1880, 1890, and 1900. This table gives the total illiterate population ten years of age and over for each of the census years. The figures are also given for the illiterate population separated into age groups; namely, from 10 to 14 years of age, from 15 to 19, and over 19 years

Note to table on preceding page. These numbers are the result of a computation necessitated by the fact that the general tables of illiteracy in the census of 1900 make the dividing line for age groups between the ages of 20 and 21, which would make comparison with 1890 impossible for the group included between the ages of 15 and 19 years. The census for 1900, however, gave the figures for the illiterate native white population 15 to 19 years of age, and for the illiterate foreign population of these ages, omitting only the figures for the aggregate number of illiterates, 15 to 19 years of age. This figure could have been obtained by adding the various nativity groups, excepting for the fact that the figures were not given for the number of colored illiterates. Figures were given, however, for illiterate negroes within this age group, and since the negroes comprise the greater part of the colored population for the state of New York, it was possible to estimate the rest of the colored population with a fair degree of accuracy.

This number was estimated by the following process: the number of illiterate negroes between the ages of 15 and 20 is reported as 606, while the number of all colored illiterates between those ages is 828, the number of negroes being 73% of the whole number of colored illiterates. The number of illiterate negroes from 15 to 19 years of age was 449. We may assume that the dropping of those 20 years of age would leave the proportion between negroes and the total colored illiterates about the same. If we make this assumption, namely, that the number of negroes, 449, is 73% of the total number of colored illiterates, we obtain 613 for the number of colored illiterates between the ages of 15 and 19. In other words, the desired number is obtained by the proportion

$$606 : 828 :: 449 : x$$

from which we obtain $x = 613$. This number is, of course, only an approximation, but the colored population of New York is of such relatively small importance that this approximation is sufficiently accurate for our purpose. An error equal to the total colored population, other than negroes, would mean an error of less than 1% in the aggregate number of illiterates in this age group: and when we come to obtain the percentage of illiterates even an error as absurdly large as this would become negligible. Having thus estimated the number of colored illiterates between 15 and 19 years of age, the other starred numbers follow from a mere arithmetical calculation.

of age, except that in 1880 the division is between 15 and 20, and those over 20. The illiterate population within each of the age groups and in the aggregate is subdivided according to nativity, into native white, foreign white, and colored.

Taking first the figures for the total illiterate population ten years of age and over, the table shows that the number of illiterates has increased throughout the twenty years at practically the same rate as the population, so that the ratio of illiterates to the total population ten years of age and over has remained stationary, being 5.5 per cent in each of the three census years.

A study of the groups according to nativity, however, brings out some important facts. It appears at once that the foreign whites are largely responsible for the illiteracy among the whole population and also that the percentage of illiteracy among foreign whites has increased, being 12.5 in 1880; 13.1 in 1890; and 14 in 1900. The percentage of illiteracy among the native whites has decreased during each decade. In 1880, 2.2 % of the native white population, ten years of age and over, were illiterate. In 1890, the percentage is 1.8, while in 1900 only 1.2 % are reported illiterate. It appears then that while the percentage of illiteracy among the foreign whites has been steadily increasing, that among the native whites has very materially decreased. The absolute numbers of illiterates among the native white population ten years of age and over were 59,516 in 1880; 57,362 in 1890; and 47,350 in 1900.

Now the native whites are the class of the population which has been mainly affected by the operation of the factory laws. The foreign white population is very largely comprised in the higher age groups which are

unaffected by the restrictions of the law. The following table will make this point clear.

FOREIGN BORN WHITE POPULATION, 1890-1900.

AGES	1890		1900	
	Number	Per cent	Number	Per cent
All ages -----	1,565,692	100.0	1,889,523	100.0
0-14 years -----	111,091	7.1	112,049	5.9
Over 14 years -----	1,454,601	92.9	1,777,474	94.1
0-19 years -----	197,158	12.6	232,636	12.4
Over 19 years -----	1,368,534	87.4	1,656,887	87.6

This table shows that in 1900, 94 % of the foreign white population was over the age of fourteen, that is, above the age limit for the employment of children in factories; while 87 per cent were above the age of nineteen years, and so were entirely unaffected by the educational restrictions of the factory law. The same fact is shown by the figures for 1890. The small number of children among the foreign white population thus explains the slight effect of the factory law in decreasing illiteracy among them, while the number of illiterates is being constantly swelled by the fresh immigration of adult foreigners.

We have then a decided decrease of illiteracy among the native white population ten years of age and over during the two decades within which the factory laws have been in operation.

If we turn now to the figures for illiterate children between the ages of 10 and 14 years, we find a more striking result, particularly in view of the fact that it is just among children of these ages that the results of the factory act should be most directly apparent. In 1880 there were 12,680 illiterate children between the

ages of 10 and 14 years. In 1890 there were 7669; and in 1900, 4740. In 1880, the illiterate children between the ages of 10 and 14 constituted 2.5 per cent. of the total number of children of those ages. In 1890 the percentage of illiteracy was 1.4, while in 1900 only .7 per cent. of the children between the ages of 10 and 14 are reported illiterate. This shows a very decided decrease in illiterate children, both in absolute numbers and in proportion to the total number of children. The percentage of illiteracy decreased by exactly half from 1890 to 1900, and the proportional decrease was almost as great in the ten years previous.

Unfortunately the census for 1880 does not distinguish between native white and foreign white within this age group. We can distinguish, however, between the native born and foreign born white children in the figures for 1890 and 1900. In 1890, 5.4 per cent. of the foreign born children between the ages of 10 and 14 were reported illiterate. This percentage has decreased to 4.6 in 1900. It is among the native born white, however, that the decrease is most remarkable. In 1890 there were 4200 illiterate children of native birth, being .9 per cent. of the total number of children of native birth within this age group. In 1900 there were only 1491 illiterate children which was only .3 per cent. of the total number of native born children between those ages. This is a decrease of two-thirds in the relative illiteracy and almost as great a decrease in the absolute number of illiterate children. The decrease among illiterate children of foreign birth while not so great as among the native born is still quite considerable and is worthy of note as showing that while the total foreign population has been increasing in illiteracy, the children of school age, and of the age in which factory employ-

ment is forbidden, have been quite materially decreasing in illiteracy.

The statistics in the next age group, 15 to 19 years, might be of some value, but unfortunately the census of 1880 placed in this group all those between the ages of 15 and 20 years, so that no comparison is possible between 1880 and the two later years. If we compare 1890 and 1900 we shall find practically the same results as have already been noticed. There has been a very slight increase in the total number of illiterates in this age group. The percentage of illiteracy has risen from 2.8 to 3. As in the case of the total population, however, this increase is more than accounted for by the increased illiteracy among the foreign born white population, while illiteracy among the native born whites has fallen from 1.1 per cent. in 1890 to .6 per cent. in 1900, a decrease of almost one half.

The next age group including those twenty years of age and over is given merely for the sake of completeness and has no special significance for our purpose.

We may say in summing up, therefore, that the United States census statistics show a decided decrease of illiteracy, both absolute and relative to the total population, among those classes of the population whose school attendance would be affected by the operation of the factory law. It is, of course, not to be pretended that this result has been brought about entirely through the force of the factory law and it would be an impossible task to attempt to eliminate all other causes. As has been shown in another chapter, the compulsory school law was practically a dead letter in 1880 and since that time has been greatly improved both in wording and in administration, and this law has doubtless been very influential in decreasing the relative illiteracy of the

younger population. We have already pointed out, however, that the labor law and the school law work hand in hand, both in the removal of children from factory employment and in increasing attendance of children at school, and the general result must be attributed to both of these factors. To say just how much is due to one and how much to the other would be impossible. There are doubtless other causes which have operated toward the same result and which it would be useless to try to eliminate. The fact remains that a remarkable decrease in illiteracy has taken place during the years in which the factory law has been in operation and it is fair to assume that this fact is something more than a coincidence.

The Law of 1903.—Before concluding this chapter on child labor there are certain results already evident from the operation of the law of 1903 which are worthy of mention. It will be remembered that the essential feature of the amendment of 1903 was a general stiffening of the conditions under which work certificates are granted. This was accomplished in the main by requiring documentary evidence of age in place of the parent's affidavit and by a very much stricter educational requirement. The amendment of 1903 went into force on October 1st of that year and of course has not been in operation long enough to allow of any broad result being shown. One or two points of interest have, however, appeared even in this short time.

The following table taken from the reports of the Health Department of New York City gives figures regarding the granting of certificates for employment in mercantile and manufacturing establishments since the law requiring board of health certificates went into effect in 1896.

EMPLOYMENT CERTIFICATES, NEW YORK CITY, 1896-1903.

YEAR	Children applying	Permits granted	Permits refused	Duplicates
1896-----	6,467	5,856	609	----
1897-----	12,812	9,021	3320	194
1898-----	16,892	15,353	1530	----
1899-----	29,544	20,345	1697	485
1900-----	30,895	22,296	1714	1218
1901-----	30,406	23,492	2203	1456
1902-----	22,086	14,482	3024	576
1903-----	29,367	13,366	4671	410

This table is introduced here for the sake of the comparison between the figures for 1902 and 1903. It will be seen that although the number of applications for certificates was greater in 1903 than in 1902 by about one-third, yet the number of permits granted in the latter year is about a thousand less than in 1902. The number refused is greater by more than half. The effect of the new law is seen still more clearly in the fact that during the months of October, November and December, 1903, 2922 certificates were issued, being sixty-seven per cent. of all who applied; whereas during the same months of the preceding year 4353 were issued which was eighty per cent. of the number of applications. Such figures as these, coming so quickly after its enactment, seems to promise excellent results from the new law.

The following figures taken from the quarterly bulletins of the state department of labor show the number of employment certificates issued in the eight leading cities of the state by quarters, from the last quarter of 1902 to the last quarter of 1904. The value of the figures is lessened by the fact that sometimes the number of certificates for employment in factories only is given, while in other cases the numbers are for both factory

and mercantile certificates. Of course no very nice comparisons can be drawn from these figures; still they are accurate enough to show a great decrease in the number of employment certificates issued since the law of 1903 went into effect. Particularly striking is the comparison between the third quarters (July, August, and September) of 1903 and 1904, the remarkable decrease being due to the fact that vacation certificates are no longer allowed.

EMPLOYMENT CERTIFICATES, EIGHT LEADING CITIES.

CITIES	1902	1903				1904		
	4th Quar.	1st Quar.	2nd Quar.	3rd Quar.	4th Quar.	1st Quar.	2nd Quar.	3rd Quar.
N. Y. City -----	2129	2179	2295	6024	1623	1766	2312	1905
Buffalo -----	378	252	735	795	123	137	215	231
Rochester -----	183	174	312	542	164	87	209	237
Syracuse -----	135	151	195	232	83	44	67	72
Albany -----	113	101	209	248	57	21	36	41
Troy -----	112	133	197	253	38	25	65	51
Utica -----	---	138	168	106	--	63	71	93
Schenectady ---	39	37	63	52	45	12	29	15

The following table shows the causes for which certificates were refused by the New York City Board of Health during the last three months of 1903.

Board of Health, 55th Street.

Insufficient tuition (schooling) -----	176
Insufficient education (can not read and write) ----	20
Insufficient evidence of age -----	15
Under age -----	39
Over age -----	4
Total -----	254

Board of Health, Elm Street.

Insufficient tuition -----	13
Insufficient education -----	12
Insufficient evidence of age -----	70
Under age -----	9
Over age -----	5
Physically incapacitated -----	1
Total -----	110

During the first quarter of 1904, 1361 applications were refused for the following reasons :

Tuition.....	480
Education.....	244
Under age.....	77
Insufficient evidence as to date of birth.....	560
Total.....	1361

The following figures give some idea of the kind of evidence of age which is being filed regarding children in New York City under the operation of the new law.

Brooklyn 34 Cases

Birth certificates.....	5
Baptismal certificates.....	24
Catholic.....	15
Lutheran.....	6
Other protestant.....	3
Jewish confirmation certificates.....	4
Jewish religious statement (not legal).....	1
Passport.....	-
Total.....	34

Manhattan (Main Office) 83 Cases.

Birth certificates.....	45
Baptismal certificates.....	34
Jewish confirmation certificates.....	2
Jewish religious statement.....	-
Passports.....	2
Total.....	83

Manhattan (Elm Street) 100 Cases.

Birth certificates.....	39
Baptismal certificates.....	28
Jewish confirmation certificates.....	18
Jewish religious statement.....	-
School entrance record (not legal).....	12
Passport.....	3
Total.....	100

From the testimony presented in this chapter it seems possible to draw but one conclusion, namely, that the factory law has been effective to a remarkable degree in bringing about the results for which it was designed.

Evidence has been brought forward from a great variety of wholly independent sources all pointing toward the same result. In twenty years the number of children employed in factories has been greatly reduced, and that in spite of the growth in the population and industries of the state which has taken place during the same interval. As compared with adult employees, the reduction in child labor is still more striking. Hours of labor have been reduced from 11 or 12 to 9 or 10. School attendance has been increased and illiteracy has been reduced to a remarkable degree among those classes of the population affected by the law. Evils still exist and the child labor problem is not by any means solved. Important results, however can be confidently expected from the new law of 1903, and all the signs of the present point toward a continuation of the movement against the evils of child labor whose past history has just been recounted. .

CHAPTER X

THE EMPLOYMENT OF WOMEN AND MINORS

Introductory—In treating of the results of the factory law on the work of women and minors, only those parts of the law which relate specifically to them will be taken up in this chapter. The provisions of the law which affect women and minors equally with all other classes of employees are discussed in the next chapter. By women and minors we are to be understood as meaning women of all ages and male minors under eighteen years of age, except in so far as those under sixteen have been already treated of in a previous chapter.

The factory law regulates the employment of women and minors by the following provisions. In the first place their labor is limited to ten hours a day or sixty hours a week. Night work between the hours of 9 P. M. and 6 A. M. is also forbidden. Previous to 1899 these restrictions of the hours of labor applied to boys under the age of eighteen and women under twenty-one. In that year, however, the restriction was extended to all women. The law also makes it illegal for women under twenty-one years of age and males under eighteen to clean machinery while in motion, and they are prohibited from working at polishing or buffing on articles made of the baser metals. Finally the law provides that water closets and wash rooms shall be provided for all female employees, separate from those used by men and having separate approaches; dressing rooms must be provided for women and girls when required by the factory inspector, and seats must be provided and their use allowed so far as necessary for the health of female employees.

These provisions are not nearly so radical as the parts of the law which regulate child labor, and evidence to show results is not so easily obtainable. We have some testimony on early conditions from the report of the bureau of labor statistics for 1885, and on results of the law in the general statements made from year to year in the annual reports of the factory inspector. The statistical tables in the latter reports give some material on hours of labor and number of women employed, and on this latter point testimony is also furnished by the United States census. As in the case of child labor, the testimony available from other sources has been supplemented by the personal investigation of the writer.

Hours of Labor.—No thoroughly satisfactory figures are available to show the hours of labor prevalent before the factory law went into force. The matter was investigated by the commissioner of labor statistics, who sent out blanks containing a number of questions to working women through the state. The answers received are tabulated in the report for 1885.¹ These figures show that out of 734 women employed in various occupations who sent in answers, 485 were working ten hours a day or less, while the remaining 249 were working more than ten hours a day. The longest hours were reported by those who were engaged in the cigar making trade in New York City. Out of 150 reporting, only 34 worked ten hours a day or less, while 116 were employed from eleven to eighteen hours. The table below gives the full figures for these cigarmakers.

The other trades in which long hours prevailed were the clothing trade in New York City, in which 18 out of 35 answers reported a longer working day than ten

¹ N. Y. bur. labor stat., 1885, pp. 32-59.

CIGAR MAKERS, NEW YORK CITY

Number of employees reporting	150
Number working 10 hours or less	34
" " 11 " 	2
" " 12 " 	4
" " 14 " 	9
" " 15 " 	15
" " 16 " 	32
" " 17 " 	31
" " 18 " 	23
Total number working more than 10 hours	116

hours; the knitting mills of Amsterdam and Little Falls where, out of 47 reporting, all but 4 were working eleven hours a day; and the silk weaving trade of New York City in which 58 out of 109 reporting were working more than ten hours a day. The remaining 393 employees who sent answers were engaged in a number of miscellaneous trades and only 14 reported a working day of more than ten hours.

We would not be justified in drawing any general conclusions from so limited a number of cases. On the general question of hours of labor the commissioner of labor statistics states in 1885 that in the large factories and workshops of New York City the working hours of women are quite regular and range from 7 or 7:30 A. M. to 5 or 5:30 P. M., making thus a working day of from nine to ten hours. In many of the large manufacturing towns of the interior, however, the hours were considerably longer, according to this report. Occasionally working hours were lengthened when there was a busy season. In the smaller establishments the hours were commonly very long; bakeries, candy shops, millinery and fancy stores kept long hours.¹

In the course of the investigation of child labor carried on by the bureau of labor statistics, it was made

¹ N. Y. bur. labor stat., 1885, p. 169.

fairly clear that the normal working day in most of the mills of Cohoes, Amsterdam, Little Falls, Utica and New York Mills was eleven hours, with occasionally an establishment running twelve hours.

At the end of the report on workingwomen, the commissioner of labor statistics states as his conclusion: "That the workingwomen of New York City and other portions of the state are subjected to excessive hours of labor . . . there can be no reasonable doubt. All the testimony taken proves it beyond a doubt."

Some further testimony is furnished by the early reports of the factory inspector. In the report for 1886, the first year of the factory law, it is estimated that there were at that time about 150,000 women under twenty-one and minors under eighteen years of age employed in the manufacturing establishments of the state, and that of these about 75,000 had been regularly working from sixty-one to one hundred hours a week. The principal occupations in which long hours prevailed were the cotton, silk, wool, and textile industries; printing establishments, bakeshops, shoeshops, and cigar factories being included to a lesser degree.² The state factory inspector states that before the passage of the factory law it was usual to hire boys between fifteen and eighteen years of age as helpers in the glass factories and paper mills, who had to work twelve hours a day and seven days a week or eighty-four hours every week. This, he says, was completely stopped by the factory law during the first year of its enforcement.³

During the first few years of the enforcement of the factory law, the inspectors reported that the number of

¹ N. Y. bur. labor stat., 1885, p. 609.

² N. Y. fact. insp. rep., 1886, p. 23.

³ N. Y. fact. insp. rep., 1887, pp. 26-27.

establishments in which women were employed more than sixty hours a week was being rapidly reduced to a minimum. The New York City sweat shops were an exception; the inspectors admitted that it was impossible to enforce the laws there and that very long hours prevailed. Outside of these places the inspectors reported that the law was being generally complied with and had resulted in shortening the hours in a great number of establishments. In 1890 the factory inspector stated, regarding hours of labor of women and minors, that outside of the New York sweat shops there had been very little disobedience of the statute. "Every important manufactory in this state, which formerly required sixty-six or more hours of labor as a week's work, is now running on sixty or less hours as the limit, and the testimony of the proprietors thereof is to the effect that their production is increased instead of diminished at the same time."¹ Two years later the factory inspector reported that the law was generally observed except possibly where there was a sudden rush of orders, and that over-time was rarely required. In the same connection the following statement is made:

There is a tendency toward shorter hours. In New York City, outside of a few trades, 55½ hours seems to be considered a week's work. Hours of labor are shorter in New York City than elsewhere, and the Saturday half-holiday more generally observed. Sixty-six hours is still considered a week's work in sweat shops. In Brooklyn, Buffalo, Rochester, Syracuse, Albany and Troy, 59 hours is usually considered a week's work. In the smaller cities it is 60 hours. Where the Saturday half-holiday is observed, the time thus taken off is added to the working time of other days, as in Cohoes.²

Of course such general statements as these, when not

¹ N. Y. fact. insp. rep., 1890, p. 26.

² N. Y. fact. insp. rep., 1892, p. 25.

based on definite figures or evidence of any sort, must be taken guardedly. They are given here for what they are worth. It seems fair to assume, however, that they do show some reduction in the overworking of women and minors; just how extensive this overworking was before the law was enacted and just how great the reduction caused by the law has been cannot be decided from such statements.

Similar general statements are all the evidence that we have from the reports of the factory inspector regarding the effect of the law of 1889 forbidding night work on the part of women under twenty-one years of age and minors under eighteen. Thus in the report for 1889 it is stated that during the five months that had elapsed since the law went into effect "several hundred young women and boys" had been stopped from working at night.² Other statements of this sort might be given.

For more definite evidence on the question of hours of labor we would naturally turn to the statistics published annually in the reports of the factory inspector. Beginning in 1887, the second year of the factory law, these statistics show the weekly hours of labor required in each establishment inspected. The original plan of these figures was apparently to determine the hours of labor of women and minors, and the heading of the column in which the figures appear is "Hours of labor of minors" or "Hours of labor of women and minors." Beginning in 1897, however, the column has been headed simply "Hours of labor." As a matter of fact it had been the practice of the inspectors for many years previous to 1897 to report the prevailing hours of labor in all establishments regardless of whether women

² N. Y. fact. insp. rep., 1889, p. 28.

and minors were employed. It is therefore not possible to use these figures to show any effect of the factory law on hours of labor of women and minors as distinguished from adult male employees. It should also be remembered that until recently the inspection of any one year has never covered all the establishments of the state. Different localities or industries would in turn receive special attention. This further reduces the value of the figures, and probably makes impossible any positive conclusions from them as to the hours of labor of employees in general. The statistics, however, occupy an important place in the annual reports of the factory inspector, and the following summary and discussion are accordingly given for what they are worth.

The accompanying table is a summary of the yearly statistics and shows the number of factories in which the weekly hours of labor are 48 hours or less, 49 to 54 hours, 55 to 60 hours, 61 to 66 hours, and 67 hours or more; the percentage of factories in each group is also given.

The figures would seem to show that throughout the period from 1887 to 1900 there has been a general tendency toward shorter hours of labor. As a rough approximation it may be said that about three-fourths of the factories of the state work from 55 to 60 hours a week. Something more than half of the remaining establishments work from 49 to 54 hours. The rest, constituting about ten per cent. of all the factories in the state, work either less than 49 hours or more than 60 hours. The great bulk of the factories of the state are, therefore, contained in the two groups of those working 49 to 54 hours and those working from 55 to 60 hours per week. It is in these two groups also that

WEEKLY HOURS OF LABOR, 1887-1900 STATE OF NEW YORK

Year	NUMBER OF FACTORIES WORKING													
	48 or less		49-54		55-60		61-66		67 or more		Total reported		Not rep.	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
1887	102	4.8	239	11.2	1,771	82.7	18	0.8	11	0.5	2,141	100	37	2,178
1888	236	5.1	970	20.8	3,351	72.0	74	1.6	22	0.5	4,653	100	78	4,731
1889	216	4.3	1065	21.2	3,652	72.6	72	1.4	28	0.6	5,033	100	78	5,111
1890	295	4.9	1084	17.9	4,407	72.9	206	3.4	51	0.8	6,043	100	147	6,190
1891	553	5.5	1881	18.8	6,821	68.3	581	5.8	147	1.5	9,983	100	114	10,097
1892	521	5.5	1304	13.6	6,776	70.9	847	8.9	111	1.2	9,559	100	21	9,580
1893	596	5.5	1426	13.1	7,827	71.7	917	8.4	145	1.3	10,911	100	127	11,038
1894	841	6.6	1864	14.6	9,225	72.2	620	4.9	232	1.8	12,782	100	104	12,886
1895	1328	6.9	3171	16.6	14,180	74.1	269	1.4	194	1.0	19,142	100	36	19,178
1896	1157	6.1	3724	19.8	13,519	71.8	215	1.1	211	1.1	18,826	100	28	18,854
1897	1404	9.4	3225	21.6	9,920	66.3	118	0.8	288	1.9	14,955	100	57	15,012
1898	1574	9.2	3609	21.1	11,367	66.5	158	0.9	380	2.2	17,088	100	11	17,099
1899	1864	9.3	4049	20.2	13,535	67.4	131	0.7	497	2.5	20,076	100	40	20,116
1900	1590	7.6	4569	21.7	14,184	67.5	144	0.7	534	2.5	21,021	100	6	21,027

the most noticeable reduction of hours has taken place. In 1887 82.7 % of the factories inspected were working from 55 to 60 hours per week while only 11.2 % worked 49 to 54 hours. Since then the former number has decidedly decreased while the latter number has increased, and in 1900 only 67.5 % were working 55 to 60 hours while 21.7 % were working 49 to 54 hours. There has also been a slight increase in the relative number of establishments working 48 hours or less, the percentage being 4.8 in 1887, 7.6 in 1900.

The relative number of factories working 61 to 66 hours increased very decidedly from 1887, being .8 % in that year and reaching a climax of 8.9 % in 1892. Since then it has decreased till in 1900 the percentage was .7, practically the same as in the beginning. The percentage of factories working 67 hours or more increased quite steadily throughout the whole period.

It is clear, therefore, that the movement toward reduction of hours has come in exactly those establishments where the restrictions of the factory law do not apply. The factory law merely limits the hours of labor of women and minors to sixty per week. There is nothing in the law to cause establishments which in 1887 were running not more than 60 hours a week to reduce their hours of labor, but it is just these factories which show a reduction. On the other hand, if the factory law has had any influence at all, it should have caused a reduction in the relative number of establishments working more than sixty hours per week. But here we find that there has been an increase. The percentages of factories working more than 60 hours per week from year to year are as follows :

1887----	1.3	1892----	10.1	1897----	2.7
1888----	2.1	1893----	9.7	1898----	3.1
1889----	2.0	1894----	6.7	1899----	3.2
1890----	4.2	1895----	2.4	1900----	3.2
1891----	7.3	1896----	2.2		

It is probable that there has been a general reduction of hours of labor throughout the state, such as is shown by the factory inspector's statistics. There is nothing in the statistics, however, to show that this result has been at all due to the operation of the factory law, even if we had not already seen that the character of the statistics themselves would make impossible the drawing of any conclusion as to the effect of the factory law on the hours of labor of women and minors. The slight increase in the relative number of establishments working over 60 hours a week is probably due to the increase in the number of places visited from year to year, making possible the inspection of a larger proportion of establishments employing only men.

To the evidence presented on the question of the hours of labor of women and minors the writer has little to add from his personal investigation. The matter of hours of labor is one that cannot be settled by merely visiting the factories. So far as could be ascertained, however, employers appeared to be observing the law in all the establishments visited. A large number of manufacturers were questioned about the matter and without exception stated that they had no fault to find with the law and were doing their best to keep within it. These statements were undoubtedly true in the majority of cases. All information that could be gained from conversation with employers, employees, and others went to show that in practically all the establishments visited women and minors were working not more than ten hours a day or sixty hours a week.

From the foregoing discussion the following conclusions would seem to be warranted. Before the passage of the factory law the hours of labor in factories were somewhat longer than they are to-day. There was no general prevalence of excessively long hours for women and minors. Still eleven and even twelve hours were very commonly considered a day's labor and eleven hours was the normal day in many of the important manufacturing cities of the interior of the state. In the large establishments of New York City hours were shorter, but on the other hand excessively long hours prevailed in some trades and in many of the small shops of the City. With the enactment of the factory law there came a very considerable reduction in hours among those establishments which were formerly running more than ten hours a day, without causing any serious inconvenience to manufacturers. Since then hours of labor for all classes of employees have been somewhat reduced; whether or not the factory law has contributed toward this result is not shown by the evidence.

Toilet Arrangements, etc.—The parts of the law relating to toilet facilities are among its most important provisions. The subject, however, is one on which it is hard to get definite and conclusive evidence. Some few figures are available but for the most part we must rely on general statements from those who are in a position to know about conditions. In the investigation into the conditions of working women made by the bureau of labor statistics in 1885, which has already been referred to a number of times, one of the questions on the blanks sent out was as to whether separate water closets were provided for women in their places of employment. Out of 810 answers received, 509 said yes, 126 no, while

175 left this question unanswered.¹ The large number of blanks shows the difficulty of getting information on this point. It is fair to assume that in at least a majority of these cases the answer would have been in the negative. It is always a hard matter to get employees to answer questions which show fault on the part of their employers, the fear of discharge in case of detection being stronger than the desire to have conditions improved. Limited as the above figures are, they still show a remarkable lack of compliance with the requirements of common decency. The commissioner stated that there was the highest medical authority for the statement that the health of female employees was being seriously threatened through their unwillingness to make use of the toilet facilities provided by their employers.²

The same lack of care for the well-being of women employees is shown in the answers to the question whether or not proper and separate facilities for change of dress were provided for male and female employees. Out of the 810 answers, 354 report yes, 221 say no, while 235 are blank.³ The difficulty of getting answers to such questions is again shown.

The very common failure to provide separate toilet facilities for female employees was noticed by the state factory inspector and his assistant, and commented on in their first and second reports. In 1886 they recommended that the matter be regulated by law and stated that "our observation convinces us that such a law is necessary in the extreme."⁴ The conditions existing be-

¹ N. Y. bur. labor stat., 1885, pp. 151-152.

² N. Y. bur. labor stat., 1885, p. 146.

³ N. Y. bur. labor stat., 1885, pp. 151-152.

⁴ N. Y. fact. insp. rep., 1886, p. 20.

fore the passage of the law are described by the factory inspector in the following paragraph :

"Very few manufacturers in constructing their buildings ever gave the subject a moment's consideration, and the result is that the water closets for males and females adjoin each other in ninety-five per cent of the workshops and factories throughout the state where females are employed, and in hundreds of cases both sexes use the same retiring rooms. In New York City in places where from twenty-five to 200 hands are at work, this was especially the case, and extreme difficulty was met in convincing employers that different arrangements must be made in order that the law be complied with."¹

The law was passed in 1887 which required that water closets be provided for female employees, "separate and apart from those used by males," etc. The factory inspector construed this to mean that closets must not adjoin each other and made it his rule to require a space of at least ten feet between them. Many manufacturers held that the law was satisfied by a mere board partition for separation. A great deal of trouble arose in consequence and the question has apparently never been definitely settled.

There can be no doubt that the law has accomplished much good. In the statistical tables in the factory inspector's report for 1887, it is reported for each establishment inspected whether or not separate closets are provided, and in nearly all cases where women are employed, the answer is in the affirmative, although in New York City a large number are reported in the negative. Outside of New York City the reports show that the law was quite generally complied with. The figures given in 1887 are not continued in later reports and we have no statistics of present conditions. State-

¹ N. Y. fact. insp. rep., 1887, pp. 45-46.

ments from a great many persons who are familiar with conditions and the personal inspection by the writer of some sixty or seventy establishments, of different sorts and in different sections of the state, tend to show that separate toilet facilities, in compliance with the law, are provided almost universally. This broad statement must be qualified, however, by excepting New York City. In the large factories of the city, occupying separate buildings, the law is probably complied with in practically all cases. But in the smaller establishments conditions are different. These small shops, employing from two or three to fifty or sixty hands, and occupying single lofts of buildings in which the ground floor is commonly used for mercantile purposes, are exceedingly numerous in New York City. In a great many of these places conditions are far from ideal and the situation of the closets and generally the absence of separate approaches thereto (to say nothing of sanitary conditions) are in violation of the spirit if not of the strict letter of the law. The section regarding toilet facilities has been one of the most difficult parts of the labor law to enforce in New York City.

A statement was quoted above¹ to the effect that prior to 1886 manufacturers in erecting new factory buildings rarely gave any thought to the proper location and arrangement of toilet facilities. There has certainly been a great change in this respect. Nearly all the trouble to-day comes from old buildings. The new factory buildings are being constructed very carefully so as generally to more than comply with the law, and toilet facilities are usually of the most approved sort.

As to the effects of improper toilet arrangements on

¹ See p. 156.

the social environment of factory employment and the morality of employees, testimony might be given from a variety of sources. Numerous instances of abuses existing in early years might be cited.

Complaints of brutal treatment from overseers and charges that in certain establishments women had to sacrifice their honor in order to secure or retain employment were frequently made. There is also some direct evidence of immorality resulting from improper toilet arrangements. Of course such evils have not all been remedied by the law, which is directed at only one out of many causes. Still there is general agreement that conditions are far better to-day than formerly, and part of this result can fairly be credited to the improvement in factory association secured by the law.

The law requiring seats for female employees, while usually violated in mercantile establishments, is generally complied with in factories and there is little complaint on the subject. There has been a great improvement in this respect over conditions twenty years ago.

Effect of the Factory Law in Checking the Employment of Women.—The law does not aim directly to reduce the number of women employed in manufacturing establishments. Nevertheless the numerous restrictions placed upon their employment might have an indirect influence calculated to bring about such a result, since many manufacturers who have been employing only a few women would discharge them and hire men rather than make expensive alterations in their factories or put up with the annoying exactions of the law regarding female employment. That the factory law has had this influence is a statement often made, but usually without any definite proof to back it

up. It is in order to get some definite evidence on this question that the statistics in this section are presented.

The table on the following page has been compiled from the United States census reports for the years 1880, 1890, and 1900, and gives the population of the state of New York, ten years of age and over, engaged in gainful occupations, by sex and by classes of occupations. All gainful occupations are divided into four general classes as follows :

1. Agricultural pursuits.
2. Professional, domestic and personal service.¹
3. Trade and transportation, and
4. Manufacturing and mechanical industries.²

From the census figures have been computed the percentages of females in the total number of persons in each group.

The last group is the one with which we are concerned, since it is practically the only one affected by

¹ In the census reports for 1890 and 1900 there were five groups of occupations, professional service being separated from domestic and personal. In order to make comparison possible these groups have been combined in the table given.

² The censuses of 1880, 1890, and 1900 followed slightly different schemes of classification into occupation groups. To make the figures for the different years comparable it has therefore been necessary to reduce them to a common basis, and the figures for 1880 and 1890 have accordingly been reduced to the scheme adopted in 1900. All the figures in the accompanying table are therefore based on the classification of 1900. In one respect the figures for 1880 are incorrect. In 1900 "Officials of mining and quarrying companies" were placed under "Manufacturing and mechanical pursuits," instead of under "trade and transportation" where they appeared in 1880 and 1890; but as this class of officials is not separately enumerated in 1880, the transfer could not be made for that year. However, as this class forms a very small part of the whole group, and as we are interested, not in the absolute numbers, but only in the relative numbers, this error is too slight to affect the result. For the details of the changes made in the classification in 1890 and 1900, see U. S. census 1890, Population, Part II, p. lxxvi; 1900, Vol. II, p. cxxvii.

POPULATION, 10 YEARS OF AGE AND OVER, IN GAINFUL OCCUPATIONS, 1880-1900

	Total	Males	Females	Percentage of females
1880—Total population (10 years and over)-----	3,981,428	1,950,059	2,031,369	51.0
All occupations-----	1,884,645	1,524,264	360,381	19.1
1. Agricultural pursuits-----	379,178	376,931	2,247	0.6
2. Professional, domestic and personal-----	529,365	323,852	205,513	38.8
3. Trade and transportation-----	350,378	334,545	15,833	4.5
4. Manufacturing and mechanical-----	625,774	488,936	136,788	21.9
1890—Total population (10 years and over)-----	4,822,392	2,385,622	2,436,770	50.5
All occupations-----	2,435,725	1,921,785	513,940	21.1
1. Agricultural pursuits-----	397,541	388,951	8,590	2.2
2. Professional, domestic and personal-----	651,026	385,256	265,770	40.8
3. Trade and transportation-----	527,564	481,790	45,774	8.7
4. Manufacturing and mechanical-----	859,594	665,788	193,806	22.5
1900—Total population (10 years and over)-----	5,801,682	2,877,822	2,923,860	50.4
All occupations-----	2,996,474	2,324,429	672,045	22.4
1. Agricultural pursuits-----	375,990	363,619	12,371	3.3
2. Professional, domestic and personal-----	832,767	515,523	317,244	38.1
3. Trade and transportation-----	753,160	656,970	96,190	12.8
4. Manufacturing and mechanical-----	1,034,557	788,317	246,240	23.8

the factory laws. The other groups are given for the sake of comparison.

In 1880 the number of females engaged in manufacturing and mechanical industries was 21.9% of the total number of persons so engaged. In 1890 the percentage was 22.5, and in 1900, 23.8. This shows a slight increase in the relative employment of women during the twenty years, though a smaller increase in the decade from 1880 to 1890, when the most important factory laws were enacted, than during the last ten years. The increase in the relative employment of women in manufacturing and mechanical pursuits between 1880 and 1890 is very slight and less than in any of the other groups of occupations; this fact might perhaps be taken as evidence showing a slight tendency of the factory law to drive women out of manufacturing and into other pursuits, but not much weight can probably be laid on this point.

There is another set of figures bearing on this same subject. These are the statistics of the average number of employees according to sex and age in the manufacturing and mechanical establishments of the state from 1850 to 1900, taken also from the United States census.¹ These figures, while covering, to a certain extent, the same ground as those just discussed, are yet obtained in a very different way and probably represent more truly actual employment in factories.

The table on the following page is identical with one given in the chapter on child labor, where its details were explained.² Children were not enumerated separately until 1870 and this fact makes the percentages

¹ U. S. census, 1900, Vol. VIII, p. 580.

² See p. 125.

somewhat misleading up to that year. Moreover, the earlier years are not of such significance for our purpose. Taking the figures, therefore, from 1870 to 1900 we see that in 1870 women formed 18.1 % of the total number of employees. In 1880 they constituted 25.9 % ; in 1890, 25.8 % ; and in 1900, 27.1 %.

AVERAGE NUMBER OF EMPLOYEES, 1850-1900

	1850	1860	1870	1880	1890	1900
Number (in thousands)						
Total	199	230	352	532	752	849
Men 16 years and over.....	148	177	267	365	545	606
Women 16 years and over.....	52	53	64	137	194	230
Children under 16.....	*	*	21	30	12	13
Percentage						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Men 16 years and over.....	74.1	76.9	76.0	68.6	72.5	71.3
Women 16 years and over.....	25.9	23.1	18.1	25.9	25.8	27.1
Children under 16.....	*	*	5.9	5.6	1.6	1.6
Percentage of increase						
Total		15.4	52.9	51.1	41.5	12.9
Men 16 years and over.....		19.7	51.2	36.3	49.6	11.0
Women 16 years and over.....		3.1	19.9	115.5	41.4	18.4
Children under 16		*	*	43.2	-58.5	7.6

*Not reported separately.

This shows a relative increase in the employment of women between 1870 and 1880 which is very considerable. Between 1880 and 1890 the proportion remains almost stationary, even decreasing slightly. This decrease is really greater than it appears, since there is a very large decrease in the employment of children between these years, with the result that the percentage of male employees rose from 68.6 to 72.5. In other words, the decrease in the employment of children was all made up in the employment of men, showing therefore a marked decrease in the employment of women as

compared with that of men. From 1890 to 1900 the percentage of men employed decreases slightly and there is a slight increase in the percentage of women. These figures show, then, a slight decrease in the relative employment of women between 1880 and 1890, the years in which the most important factory laws were enacted. This decrease, although slight, is the more significant since there is quite a noticeable increase in the decades just preceding and just following.

From the same table we have another set of percentages; namely, the percentages of increase in the employment of men, women and children. These figures, while not so significant, still point toward the same result; thus, the number of women employed increased 115.5 per cent from 1870 to 1880; whereas the number of men increased only 36.3 per cent., or less than one-third of the increase of women. From 1880 to 1890, however, female employees increased only 41.4 percent, while the men employed increased 49.6 per cent. In the next ten years, up to 1900, women increased by 18.4 per cent and men, 11 per cent. These figures show the same checking of the increase of female employment between the years 1880 and 1890, as was shown in the former percentages. Between 1880 and 1890, the percentage of increase of men is greater than that of women, while the reverse is very marked in the decades preceding and following.

Taking these figures, therefore, in connection with the table given first, which bears only negative testimony, the evidence would seem to show that while the absolute number of female employees has been increasing for the past thirty years, this increase received a distinctly noticeable check in the decade between 1880

and 1890, within which decade were enacted the first factory laws.

Regarding the relative employment of women as compared with that of men, we have also some evidence in the factory inspector's statistics. A summary of these statistics for the whole state is given in the table on the following page. Similar tables for each of the eight districts into which the state is divided will be found in the Appendix, from which the percentages of females employed have been taken to form the table on page 166. These tables are similar to the corresponding ones discussed in the chapter on child labor, and the explanations and qualifications made in that place apply equally here.¹

The figures here given show that in 1887 38.3 per cent of the employees of the factories visited by the inspectors were females, while in 1903 women constituted only 29.9 per cent. The decrease has been fairly regular. There are some variations in the several districts but a decrease in the relative employment of women is shown in each. It will not be worth while to discuss the separate districts.

These figures must not be taken, however, as positive proof that the employment of women in the factories of the state has decreased relatively to that of men. As has been already stated in the chapter on child labor, the number of factories inspected in the early years was only a small fraction of the number in the whole state, and in making their visits the inspectors naturally selected those establishments employing the largest proportion of women and children. As the number of in-

¹ For the absolute numbers and the general discussion and criticism of the figures, see Appendix, pp. 174-187.

² See pp. 131, 132.

AVERAGE NUMBER OF EMPLOYEES, STATE OF NEW YORK

Year	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent of females	Per cent of children under 16
1887	2,178	104,623	64,828	12,049	21,661	7514	6695	14,209	169,451	38.3	8.4
1888	4,731	172,235	105,187	18,625	39,200	9485	8953	18,438	277,422	37.9	6.6
1889	5,111	177,143	100,064	18,547	35,341	8198	7116	15,314	277,207	36.1	5.5
1890	6,190	210,452	116,426	19,878	40,118	7694	6975	14,669	326,878	35.6	4.5
1891	10,097	281,517	140,553	22,923	48,774	9470	8035	17,495	422,070	33.3	4.1
1892	9,570	243,114	131,252	19,281	48,468	7475	6630	14,105	374,366	35.1	3.8
1893	11,038	277,529	138,708	19,986	48,948	7204	6660	13,864	416,237	33.3	3.8
1894	12,886	310,464	150,662	19,785	55,231	6559	5980	12,536	460,926	32.7	2.7
1895	19,178	385,346	173,588	21,755	57,170	6780	6904	13,684	558,934	31.1	2.4
1896	18,854	381,909	166,321	19,815	56,385	5528	6803	12,331	548,230	30.3	2.3
1897	15,012	369,496	137,401	18,926	45,980	4854	4673	9,527	506,897	27.1	1.9
1898	17,099	402,238	160,605	20,141	52,184	5270	6078	11,348	562,843	28.5	2.0
1899	20,116	464,979	182,530	20,375	—	7325	7135	14,460	647,509	28.2	2.2
1900	21,027	484,029	183,799	22,069	—	7769	7203	14,972	667,828	27.5	2.2
1901*	22,516	446,923	199,904	17,870	—	7243	7654	14,997	646,897	30.9	2.3
1902*	28,614	540,459	234,331	20,685	—	8564	8206	16,770	774,790	30.2	2.2
1903*	34,235	611,792	260,598	24,500	—	9058	9102	18,160	872,390	29.9	2.1

* The figures for 1901-1903 do not include children under 14 years of age. There were of these in 1901, 212; in 1902, 292; and in 1903, 460. The figures for 1901 cover only the ten months from December 1, 1900, to September 30, 1901, owing to a change in the official year at the time of the consolidation of the department of labor.

AVERAGE NUMBER OF EMPLOYEES. PERCENTAGE OF FEMALES

District Year	I	II	III	IV	V	VI	VII	VIII	State
1887	27.0	50.7	41.0	63.6	33.1	24.0	31.4	16.7	38.3
1888	25.0	52.2	41.4	53.6	32.5	24.1	29.6	14.7	37.9
1889	32.5	43.0	40.0	50.5	30.7	20.2	29.7	15.0	36.1
1890	30.5	44.2	38.4	46.9	29.2	20.9	28.5	16.1	35.6
1891	28.7	40.8	35.9	39.2	26.1	21.2	30.8	16.6	33.3
1892	34.4	43.0	39.1	48.9	24.4	23.2	25.7	14.7	35.1
1893	30.0	39.1	35.0	46.6	24.3	25.0	27.1	15.4	33.3
1894	29.8	38.1	30.2	44.4	25.8	21.4	27.6	15.8	32.7
1895	27.9	33.9	28.2	41.6	27.3	22.0	31.4	16.5	31.1
1896	27.1	34.8	27.1	42.5	23.5	23.5	28.0	15.4	30.3
1897	20.3	32.2	23.6	38.8	20.8	21.6	26.6	14.2	27.1
1898	22.1	34.5	26.2	40.0	24.5	21.2	26.1	16.1	28.5
1899	23.3	33.5	25.5	38.5	23.8	22.1	25.5	15.6	28.2
1900	22.3	31.7	26.1	37.2	24.5	23.0	25.3	16.1	27.5

spectors increased they were enabled to visit a larger and larger number of factories, thus taking in those establishments which employ a smaller proportion of women. Again the early factory laws applied almost exclusively to women and children, so that it was unnecessary to inspect factories employing only men. Since then the law has been extended to regulate the employment of men in numerous particulars, so that the law now applies to all the factories of the state, including those which employ only men. It follows naturally that the establishments visited in the earlier years must have had a larger proportion of female employees than is found in the whole number of factories inspected during later years. This tendency is probably sufficient to explain the decreased proportion of women found employed in factories inspected, so that the figures given here do not necessarily conflict with those given above from the United States census but probably show only that the factory inspector's statistics are gradually approaching the actual proportion of men and women employed in all the manufacturing establishments of the state. The census, on the other hand, gives us figures only at intervals of ten years, while the figures from the factory inspector's report apply to every year. It is possible, therefore, that there may have been a real decrease in the relative employment of women during the latter part of the decade between 1890 and 1900. Thus in 1895 nearly as many establishments were visited by the inspectors as in 1899 and 1900, and yet the proportion of women reported has been decreasing. Whether this means a real decrease in the relative employment of women cannot be answered from the evidence.

CHAPTER XI

PROVISIONS AFFECTING ALL EMPLOYEES

The most important parts of the factory law have been discussed in the two preceding chapters. It remains to speak very briefly of those parts of the law which affect all employees alike regardless of sex and age. These provisions may be grouped for convenience under three heads.

Under the heading of protection against accidents the law requires the placing of safety appliances upon all dangerous machinery. Elevator shafts must be properly enclosed by gates or doors, and the apparatus of elevators must be inspected and kept in good condition; no child under fifteen is permitted to operate an elevator and no person under eighteen, in case the speed of the elevator exceeds two hundred feet a minute. Work rooms, halls and stairways must be lighted if necessary for the sake of safety; employers are required to report to the commissioner of labor within forty-eight hours all accidents occurring in their establishments. Finally, the factory inspector is required to pass upon the safety of factory buildings with power to condemn any unsafe structure, and he must see that all boilers in factories are regularly inspected and kept in good order.

Under the subject of protection against fire may be placed the provisions of the law which require fire escapes of a pattern approved by the factory inspector on all factory buildings more than two stories in height. It is also required that stairways be provided with hand rails and that the steps be covered with rubber if necessary. Doors must open outwardly where practicable and must not be locked during working hours.

Under the third head we may place those parts of the

law which relate to sanitation and health, such as the requirement that walls and ceilings be whitewashed when necessary, that suitable wash rooms and toilet arrangements be provided and kept in good condition, and that exhaust fans be attached to all dust creating machinery. The law provides for proper ventilation, and aims to prevent overcrowding by requiring a certain number of cubic feet of air space to each employee in a room. Not less than sixty minutes must be allowed for the noon day meal except with the permission of the factory inspector, and twenty minutes must be allowed for lunch in case work continues more than an hour after six o'clock in the evening.

To show results from these provisions of the law is by no means an easy matter, even in cases where there can be no reasonable doubt that there have been results. No figures can be produced to show improvement in the health of employees through the sanitary provisions of the law. A decrease in the number of accidents and in the loss of life by fire might be looked for if we had reliable statistics of accidents extending back some twenty years. Such statistics, however, are not at hand. It is true that the law has required the reporting of all accidents to the factory inspector and all accidents thus reported are tabulated in the annual reports of the department. The trouble with these statistics is obvious. No manufacturer likes to make public accidents that have occurred in his establishment, especially if he has any reason to believe that other manufacturers are not reporting theirs. The result has been that, as a rule, manufacturers have reported accidents only when compelled to do so by the authorities. In the early years accidents generally came to the knowledge of the factory inspector through the newspapers; employers were then called upon to hand in the required

reports. As the number of the inspectors and the efficiency of the department have been increased the reporting of accidents to the department has become more and more regular and general. As a result any decrease that may have taken place in the number of accidents is more than made up by the greater proportion reported from year to year.

The few conclusions which are possible on this part of the factory law must therefore be based upon testimony of a general nature coming in the main from the same sources as in the two preceding chapters. There can be no doubt that there has been great improvement in the conditions of factory employment during the past twenty years. This improvement is due in no small degree to the influence of the factory law. Thus in the matter of guarding machinery there has been a great advance. As a single instance, in collar and shirt factories, shoe factories, and establishments engaged in the manufacture of clothing, sewing machines are arranged along tables under which runs the shafting which propels them. Accidents caused by catching the clothing in this shafting were of very frequent occurrence especially where women were employed. Such accidents were easily preventable but it was left for the factory law to compel manufacturers to provide the proper guards. Again, one of the most frequent sources of accident in factories has been the set screws in revolving shafts. It was the rule in early years for these to stand out from the shaft in such a way as to be likely to catch in the clothing of those who were not very careful. Set screws are now almost universally guarded and this result has been brought about by law. There has also been a great improvement in the matter of appliances for shifting belts, the lack of which was responsible for numerous accidents. In places where grinding and polishing

were done health was seriously threatened by the clouds of dust which were allowed to fill the rooms. This evil has been largely done away with through the provision of the law requiring exhaust fans. In early years the manufacturers of machinery paid little attention to guarding cog wheels and gearing. The fact that modern machinery is very generally provided with guards by the maker can be traced to the influence of the factory law. For instance, the makers of laundry machinery in Troy in 1889 improved the design of their machines at the suggestion of one of the factory inspectors.

The statement is made frequently in the reports of the factory inspector that the number of accidents has been greatly decreased through the section of the law which requires the reporting of accidents by employers. This statement seems reasonable although it cannot be proved.

In the matter of fire escapes there has been decided improvement. Previous to 1887 there was practically no regulation in this matter outside of the three largest cities. Testimony of the commissioner of labor statistics and the factory inspector is very strong as to the widespread lack of proper means of escape on factory buildings. Out of 816 answers received to blanks sent out by the former, 350 reported that outside fire escapes were provided in their places of employment; 318 reported that they were lacking, and the question was unanswered by 148.¹ This was in 1885. The year before, the investigation of the commissioner of labor statistics into conditions of child labor in a number of cities in the state brought out the alarming lack of means of escape from fire. The first two or three reports of the factory inspector refer again and again to the need of fire escapes on factories. Thus the report for 1887 calls attention to "the crying need of suitable means of

¹N. Y. bur. labor stat., 1885, pp. 151-152.

egress from thousands of buildings, many of which were fire traps in the full meaning of the term."¹

The act of 1887 which first required fire escapes on factory buildings was poorly drawn and resulted in the erection of hundreds of fire escapes which were of very little practical use. Description of some of these escapes has been given in a previous chapter.²

The law was amended in 1889 and the escapes erected since then have been of some service. Some of the early escapes which, while better than the average, were anything but ideal, have been allowed to remain and are in existence today. The early lack of fire escapes and the effectiveness of the law are shown by the fact that during the first year or two of its enforcement from one to three hundred escapes were erected annually in each district under orders of the factory inspectors; by 1892 it was estimated that four thousand escapes had been erected throughout the state in compliance with orders of the factory inspector. Another result of the law is seen in the fact that modern factory buildings are almost universally equipped with suitable fire escapes when erected. Architects now generally make provision for fire escapes in their plans for factories, which was not generally done before 1887. Danger from fire has likewise been materially lessened by the provisions of the law requiring that stairways be kept in proper condition and that doors open outwardly, and forbidding the locking of doors during working hours. These provisions have certainly resulted in decreasing danger from fire in factory buildings. Any number of cases might be cited showing loss of life due to the absence of proper fire escapes in early years and alongside of these might be placed numerous recent cases where serious loss of

¹ N. Y. fact. insp. rep., 1887, p. 36.

² See p. 53.

life would have resulted but for the escapes provided through the influence of the law.

The sanitary provisions of the law are mostly of rather recent date and are of relatively minor importance. A strict enforcement of many of the provisions would be well-nigh impossible, and it is not likely that these sections of the law have had any very far reaching results. One of the most troublesome parts of the law to enforce has been the section requiring that toilet rooms be kept clean and in good condition. The condition in most of the smaller shops in New York City shows that this part of the law is far from effective. One good effect of the law has been the setting of a sort of standard to be followed in the erection of new factories. Most modern factory buildings leave little to be desired in sanitary arrangement. Still, too much credit must not be given to the law. The majority of the better class of factories would probably have been well built and arranged without the influence of the factory law. The section of the law regarding time for the noon day meal is not important. Practically all requests for a shorter time comes from the employees.

In concluding this chapter it may be stated that the provisions of the law which aim to safeguard life and health through guarding machinery, providing fire-escapes, and securing proper sanitary arrangements have without doubt greatly decreased the dangers attending factory employment, although the evidence must necessarily be of a somewhat general sort and it is, of course, impossible to eliminate other forces which have been working in the same direction.

ERRATA

On page 3, foot note 2, for 105-106 read 80-81.

On page 3, foot note 3, for 89-91 read 68-69.

On page 15, foot note, for 22 read 17.

APPENDIX

STATISTICS FROM THE FACTORY INSPECTOR'S REPORTS 1887-1900

Introductory.—The greater part of each of the annual reports of the factory inspector is made up of statistical tables giving information about the establishments inspected during the year. These tables give for each year the average number of employees according to sex and age for each establishment inspected, the weekly hours of labor, and certain details regarding number and character of changes ordered and whether or not these orders have been complied with. Certain other facts such as the hours of labor on Saturday, number of illiterate children employed, the time allowed for the noon day meal, etc., are given in the reports for certain years but not continuously throughout the whole period. In the reports from 1887 to 1900 this material, occupying from 150 to 900 pages in each report, is rendered almost valueless by the form in which it is presented and the lack of proper analysis and summary. The tables merely consist of a list of all the individual factories inspected during the year with the specified facts regarding each, arranged by districts and counties, and sometimes by towns. The number of employees, grouped according to age and sex, is summarized each year for the whole state. From 1887 to 1895 the number of employees was also summarized by districts, and these reports gave in addition the ratio of children under sixteen years of age to the total number of persons employed for each district and for the whole state.

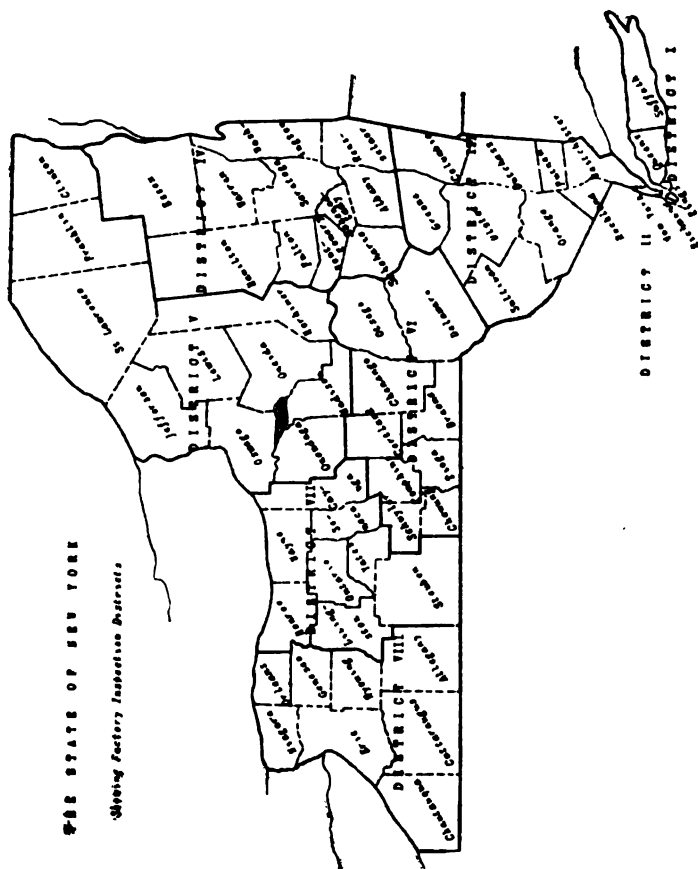
Since 1895 this valuable information has been omitted from the reports, which merely give the total number of employees by age and sex for the whole state. As to the weekly hours of labor the only information obtainable from the reports is the number of hours worked by each individual factory in the state. The report of 1901 was the first to make any attempt at analysis or summary of this material.

In order to make these statistics of practical value it has seemed advisable to undertake a somewhat complete analysis and tabulation of the figures, and the results of this work are contained in the following pages. The material is presented under two heads, namely, the average number of employees and the weekly hours of labor. These will be taken up in turn.

For convenience of administration the factory inspector in 1887 divided the whole state into eight districts as follows: ¹

¹See map on p. 175.

- District I. Counties of Kings, Queens, Suffolk and Richmond.
 District II. New York City.¹
 District III. Counties of Westchester, Rockland, Orange, Putnam, Dutchess, Ulster, Sullivan, Greene and Columbia.¹
 District IV. Counties of Albany, Rensselaer, Schenectady, Saratoga, Washington, Warren, Hamilton, Fulton, Essex, Montgomery and Schoharie.
 District V. Counties of Jefferson, Franklin, Lewis, Clinton, Herkimer, St. Lawrence, Oneida, Oswego, Madison and Onondaga.
 District VI. Counties of Delaware, Otsego, Chenango, Broome, Cortland, Tioga, Tompkins, Schuyler and Chemung.
 District VII. Counties of Cayuga, Wayne, Seneca, Monroe, Livingston, Ontario, Yates and Steuben.
 District VIII. Counties of Orleans, Niagara, Genesee, Wyoming, Allegany, Cattaraugus, Chautauqua and Erie.



¹During the years 1888 to 1892 the part of New York City north of Twenty-third Street was included in district three, leaving in district two only that part of New York south of Twenty-third Street. In order to make comparison possible we have in the tables for these years subtracted the figures for the northern part of New York City from the third district and added them to the second, so that, in the tables here given the second district invariably comprises New York City, while district three comprises the counties given in the list above.

In presenting these tables some statement should be made regarding their probable reliability. As stated above, the figures for the average number of employees by years and districts and the percentages of children under sixteen years of age were computed by the factory inspector and presented in the annual reports from 1887 to 1895. This work has not been repeated by the writer and for these years the tables given in the following pages are merely copied from the reports of the factory inspector, changes being made only when errors in the printed tables have been detected incidentally in the course of the work on the tables of weekly hours, and when it has been found that the columns in the printed tables have not been correctly added. It must be stated, however, that wherever the work on other parts of the books has furnished a check on these figures the proportion of errors detected has been exceedingly large. Hardly a column has been found free from error and in some columns more than half of the figures given have been shown to be incorrect, and errors running up into the thousands are by no means infrequent. These errors have all been corrected in the tables here presented, but the larger part of the figures for the average number of employees from 1887 to 1895 have not been subjected to any check and are given exactly as furnished in the reports. From what has been said it will be seen that these tables are subject to more or less suspicion. Corresponding figures for the years from 1896 to 1900 have all been computed under the direction of the writer from the original tables in the reports. Every precaution has been taken to eliminate errors and it is believed that while an occasional error may have crept in, the figures can be safely relied upon. This statement applies also to the tables on weekly hours of labor, the whole of which has been computed under the direction of the writer.

In all of this we are of course assuming the trustworthiness of the original tables themselves an assumption which may not be wholly warranted by the facts. The figures are probably about as reliable as the average statistics of this sort. One important fact should, however, be borne in mind in drawing conclusions from the figures. The tables do not relate to the whole number of factories in the state, but only to the factories inspected in a given year. In the early years the number of inspectors was small, and it was impossible to cover more than a small part of the manufacturing establishments of the state. Since then the proportion inspected has steadily increased till today the inspectors plan to cover practically every establishment in the state which is affected by the provisions of the factory law. The factories chosen for inspection in the earlier years were as a rule those employing the largest number of children and women, or those regarding which complaints had been received.

Average Number of Employees.—Under this head are given the average number of employees for each year and each district, grouped according to sex and age, the groups being based, of course, on the

requirements of the factory law. Thus we have the number of males, of females, of males under 18 years of age, of females under 21, of males under 16, of females under 16, of children (both sexes) under 16, and total number of persons employed. The tables also show for each district and for each year what percentages of the total number of employees are females and what percentages are children under 16 years of age. For convenience of reference the number of factories inspected is given in these tables.

Weekly Hours of Labor.—As has been stated, the factory inspector's reports give for each year the prevailing weekly hours of labor in each factory of the state. In order to make this material available for study, tables have been compiled in which the factories are arranged according to their weekly hours of labor, into those which work 48 hours or less, 49 to 54 hours, 55 to 60 hours, 61 to 66 hours, and 67 hours or more. Each year there are certain factories which fail to report their hours of labor. The tables therefore give the total number of factories reporting, the total of those that fail to report, and the sum of these totals, which is, of course, the total number of places inspected. In order to facilitate comparison between districts and to discover variations from year to year, the percentage of factories in each column is given, these percentages being based on the total number reporting.

In the work of collecting these statistics there has evidently been a good deal of uncertainty on the part of the authorities themselves as to just what class of employees it was intended to cover. The original plan was apparently to determine the hours of labor of women and minors, and the heading of the column in which the figures appear was at first "Hours of labor of minors," or "Hours of labor of women and minors." Beginning in 1897, however, the column has been headed simply "Hours of labor." As a matter of fact it had been the practice of the inspectors for many years previous to 1897 to report the prevailing hours of labor in all establishments regardless of whether women or minors were employed. The hours of labor are generally the same for all classes of employees.

NOTE. Since 1900 the preparation of the reports of the factory inspector has been in the hands of expert statisticians, and the material is presented in a way which leaves little to be desired. Should the reader desire to supplement the statistics given in this Appendix by adding the corresponding figures for 1901 and later years, he is referred to the reports of the factory inspector for those years where the material will be found easily available.

AVERAGE NUMBER OF EMPLOYEES, STATE OF NEW YORK

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent of females	Per cent of children under 16
1887	2,178	104,623	64,828	12,049	21,661	7514	6695	14,209	169,451	38.3	8.4
1888	4,731	172,235	105,187	18,625	39,200	9485	8953	18,438	277,422	37.9	6.6
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1890	6,190	210,452	116,426	19,878	40,118	7694	6975	14,669	326,878	35.6	4.5
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1892	9,570	243,114	131,252	19,281	48,468	7475	6630	14,105	374,366	35.1	3.8
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1894	12,886	310,264	150,662	19,785	55,231	6556	5980	12,536	460,926	32.7	2.7
1895	19,178	385,346	173,588	21,755	57,170	6780	6904	13,684	558,934	31.1	2.4
1896	18,854	381,909	166,321	19,815	56,385	5528	6803	12,331	548,230	30.3	2.3
1897	15,012	369,496	137,401	18,926	45,980	4854	4673	9,527	506,897	27.1	1.9
1898	17,099	402,238	160,605	20,141	52,184	5270	6078	11,348	562,843	28.5	2.0
1899	20,116	464,979	182,530	20,375	—	7325	7135	14,460	647,509	28.2	2.2
1900	21,027	484,029	183,799	22,069	—	7769	7903	14,972	667,828	27.5	2.2
1901*	22,516	446,923	199,904	17,870	—	7243	7654	14,997	646,827	30.9	2.3
1902*	28,614	540,459	234,331	20,685	—	8504	8906	16,770	774,790	30.2	2.2
1903*	34,235	611,792	260,598	24,500	—	9058	9102	18,160	872,390	29.9	2.1

* The figures for 1901-1903 do not include children under 14 years of age. There were of these in 1901, 212; in 1902, 292; and in 1903, 460. The figures for 1901 cover only the ten months from December 1, 1900, to September 30, 1901, owing to a change in the official year at the time of the consolidation of the department of labor.

AVERAGE NUMBER OF EMPLOYEES DISTRICT I

Year	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	283	19,197	7,107	1930	2851	962	606	1632	26,304	27.0	6.2
1888	472	27,207	9,081	2414	3727	1131	663	1794	36,388	25.0	4.9
1889	385	17,610	8,488	2202	3864	729	747	1476	26,098	32.5	5.7
1890	577	25,915	11,379	3212	4484	794	633	1427	37,294	30.5	3.8
1891	929	35,150	14,124	3864	5497	1212	892	2104	49,274	28.7	4.3
1892	797	25,227	13,207	2766	4904	815	760	1575	38,434	34.4	4.1
1893	949	33,663	14,442	2902	5799	769	844	1613	48,105	30.0	3.4
1894	1547	41,971	17,819	3394	7285	790	742	1532	59,790	29.8	2.6
1895	2148	50,673	19,615	3206	6854	786	844	1630	70,288	27.9	2.3
1896	1941	53,697	19,925	3382	6882	644	882	1526	73,622	27.1	2.1
1897	1856	61,749	15,699	4662	6994	818	774	1592	77,448	20.3	2.1
1898	2369	68,198	19,350	3277	7765	836	913	1749	87,548	22.1	2.0
1899	2578	75,019	22,822	2695	—	1164	1548	2712	97,841	23.3	2.7
1900	2218	74,096	21,290	3499	—	1360	1393	2753	95,386	22.3	2.9

AVERAGE NUMBER OF EMPLOYEES DISTRICT II

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	346	13,531	13,904	1744	5,904	1042	1475	2517	27,435	50.7	9.2
1888	1581	36,049	39,333	4036	15,862	1917	3342	5259	75,382	52.2	7.0
1889	1786	44,054	33,267	3671	11,944	1360	1922	3282	77,321	43.0	4.2
1890	2521	58,559	46,369	5100	16,448	1866	2753	4619	104,928	44.2	4.4
1891	4399	83,523	57,615	6324	21,673	2580	3175	5755	141,138	40.8	4.1
1892	4475	71,387	53,817	5179	22,674	1865	2483	4348	125,204	43.0	3.5
1893	5207	80,120	51,365	5088	19,430	1510	1861	3371	131,485	39.1	2.6
1894	5320	103,385	63,558	5675	24,486	1868	2204	4072	166,943	38.1	2.4
1895	9741	142,280	72,811	6323	24,251	1829	2404	4233	215,091	33.9	2.0
1896	9850	127,614	68,183	5630	25,363	1311	2562	3873	195,797	34.8	2.0
1897	6454	114,786	54,605	5266	19,387	1051	1534	2585	169,391	32.2	1.5
1898	7074	114,551	60,328	5644	20,376	1087	1860	2947	174,879	34.5	1.7
1899	8116	134,853	68,044	5524	—	1357	2069	3456	202,897	33.5	1.7
1900	8513	148,844	69,208	5775	—	1730	2389	4119	218,052	31.7	1.9

AVERAGE NUMBER OF EMPLOYEES DISTRICT III

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	173	13,927	9,659	2007	2031	1283	1072	2355	23,586	41.0	10.0
1888	244	16,219	11,470	2382	4840	1299	1144	2443	27,089	41.4	8.8
1889	235	15,879	10,564	2168	4662	1187	1038	2225	26,443	40.0	8.4
1890	248	16,964	10,593	1707	3930	882	797	1679	27,557	38.4	6.1
1891	323	21,675	12,110	1922	4257	997	854	1851	33,735	35.9	5.5
1892	315	19,078	12,259	1767	5232	783	655	1438	31,337	39.1	4.6
1893	401	24,855	13,375	2694	4891	1026	692	1728	38,230	35.0	4.5
1894	462	23,508	10,181	1774	4056	713	476	1189	33,689	30.2	3.5
1895	800	32,672	12,830	2313	4816	888	564	1452	45,502	28.2	3.2
1896	882	34,395	12,806	1989	4382	620	554	1174	47,201	27.1	2.4
1897	891	32,387	10,019	1408	3084	517	440	957	42,406	23.6	2.3
1898	877	31,073	11,013	1393	3023	530	519	1049	42,086	26.2	2.5
1899	988	41,441	14,170	1853	—	718	565	1283	55,611	25.5	2.3
1900	981	33,925	11,986	1639	—	807	523	1330	45,911	26.1	2.9

AVERAGE NUMBER OF EMPLOYERS DISTRICT IV

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	192	9,051	15,818	1165	4027	894	1311	2205	24,869	63.6	8.9
1888	365	17,958	20,707	1618	4543	1099	1550	2649	38,665	53.6	6.9
1889	489	21,446	21,915	1584	3902	1030	1098	2128	43,361	50.5	4.9
1890	480	23,437	20,698	1858	4546	970	1035	2005	44,135	46.9	4.5
1891	936	35,454	22,877	2065	4641	1165	1100	2265	58,331	39.2	3.9
1892	795	24,037	23,010	1913	4655	931	980	1911	47,047	48.9	4.1
1893	769	31,600	27,571	2162	6724	934	1202	2136	59,171	46.6	3.6
1894	1006	35,277	28,208	2389	8463	921	881	1802	63,485	44.4	2.8
1895	1597	42,440	30,182	2361	7582	833	970	1803	72,622	41.6	2.5
1896	1590	41,665	30,735	2176	7313	732	948	1680	72,400	42.5	2.3
1897	1317	43,324	27,512	2174	6543	608	615	1223	70,836	38.8	1.7
1898	1443	45,852	30,564	2251	7317	577	720	1297	76,416	40.0	1.1
1899	1838	56,619	35,433	2120	—	1145	838	1983	92,052	38.5	2.1
1900	2041	58,382	34,572	2379	—	887	914	1801	92,954	37.2	1.9

AVERAGE NUMBER OF EMPLOYEES DISTRICT V

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	305	13,510	6,675	1301	2277	1022	958	1980	20,185	33.1	9.9
1888	459	15,586	7,499	2110	3160	1031	869	1900	23,085	32.5	8.2
1889	533	20,461	9,068	3002	4228	1317	1054	2371	29,529	30.7	8.0
1890	559	21,978	9,069	2547	3588	996	756	1752	31,047	29.2	5.6
1891	602	31,970	11,268	2487	4325	1161	816	1977	43,238	26.1	4.6
1892	968	33,358	10,788	2177	3405	1094	766	1860	44,146	24.4	4.2
1893	878	32,113	10,285	1896	3541	750	634	1384	42,398	24.3	3.3
1894	1196	29,529	10,281	1646	3177	593	532	1125	39,810	25.8	2.8
1895	1334	35,142	13,213	2063	4112	826	793	1619	48,355	27.3	3.3
1896	1137	34,858	10,703	1635	3348	607	588	1195	45,561	23.5	2.6
1897	1249	35,329	9,293	1469	2822	562	418	980	44,622	20.8	2.2
1898	1571	43,129	14,011	1947	4565	735	794	1529	57,140	24.5	2.7
1899	1895	48,133	15,002	2143	—	990	877	1867	63,135	23.8	3.0
1900	2208	52,866	17,146	2382	—	1018	947	1945	69,992	24.5	2.8

AVERAGE NUMBER OF EMPLOYEES DISTRICT VI

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent of females	Per cent of children under 16
1887	271	9,231	2908	481	673	355	185	540	12,139	24.0	4.4
1888	565	13,072	4146	931	944	486	254	740	17,218	24.1	4.3
1889	703	13,976	3531	813	1003	364	185	549	17,507	20.2	3.1
1890	634	12,296	3242	480	763	180	125	395	15,538	20.9	2.0
1891	815	14,946	4026	1003	1255	250	109	359	18,972	21.2	1.9
1892	534	13,305	4024	985	1213	214	106	320	17,329	23.2	1.9
1893	668	14,896	4966	847	1583	242	115	357	19,862	25.0	1.8
1894	809	16,281	4445	695	1274	178	156	334	20,726	21.4	1.6
1895	757	15,323	4333	564	1202	119	92	211	19,656	22.0	1.1
1896	805	15,625	4796	549	1241	145	97	242	20,421	23.5	1.2
1897	843	15,168	4175	463	979	126	98	224	19,343	21.6	1.2
1898	851	16,238	4372	901	1236	112	115	227	20,610	21.2	1.1
1899	981	17,715	5038	758	—	181	142	323	22,753	22.1	1.4
1900	1093	18,380	5494	761	—	145	132	277	23,874	23.0	1.2

AVERAGE NUMBER OF EMPLOYEES DISTRICT VII

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	281	13,563	6,221	1890	2405	1024	721	1745	19,784	31.4	8.8
1888	494	20,128	8,477	2406	3679	945	674	1619	28,605	29.7	5.7
1889	557	22,385	9,452	2795	3653	817	603	1420	31,837	29.7	4.5
1890	616	25,384	10,119	2421	3962	632	421	1053	35,503	28.5	3.0
1891	964	27,804	12,347	2669	4019	865	618	1483	40,151	30.8	3.7
1892	847	25,094	8,694	2096	3323	731	575	1306	33,788	25.7	3.9
1893	1388	30,199	11,214	2374	4506	969	916	1885	41,413	27.1	4.6
1894	1343	25,025	9,561	1746	3980	644	612	1256	34,586	27.6	3.6
1895	1460	28,402	13,026	2477	5113	716	769	1485	41,428	31.4	3.6
1896	1417	27,644	10,749	1786	4525	511	536	1047	38,393	28.0	2.7
1897	1008	25,442	9,234	1384	3491	449	341	790	34,676	26.6	2.3
1898	1194	30,888	10,922	1698	4202	602	477	1079	41,810	26.1	2.6
1899	1421	32,789	11,208	1703	—	632	464	1096	43,997	25.5	2.5
1900	1609	36,757	12,422	1687	—	734	409	1143	49,179	25.3	2.3

AVERAGE NUMBER OF EMPLOYERS DISTRICT VIII

YEAR	Number of factories inspected	Males	Females	Males under 18 years of age	Females under 21 years of age	Males under 16 years of age	Females under 16 years of age	Total number of children under 16	Total number of persons employed	Per cent. of females	Per cent. of children under 16
1887	327	12,613	2,536	1531	1493	932	303	1235	15,149	16.7	8.2
1888	551	26,016	4,474	2728	2445	1577	437	2034	30,490	14.7	6.7
1889	423	21,332	3,779	2310	2085	1394	469	1863	25,111	15.0	7.4
1890	555	25,919	4,957	2553	2397	1374	455	1829	30,876	16.1	5.9
1891	729	31,045	6,186	2589	3107	1240	461	1701	37,231	16.6	4.6
1892	839	31,928	5,453	2398	3062	1042	305	1347	37,081	14.7	3.6
1893	778	30,983	5,490	2023	2474	994	395	1390	35,573	15.4	3.9
1894	1203	35,288	6,609	2463	2510	849	377	1226	41,897	15.8	2.9
1895	1341	38,414	7,578	2358	3240	783	468	1251	45,992	16.5	2.7
1896	1532	46,411	8,424	2670	3391	958	636	1594	54,835	15.4	2.9
1897	1394	41,311	6,864	2100	2680	723	453	1176	48,175	14.2	2.4
1898	1720	52,309	10,045	3030	3700	791	680	1471	62,354	16.1	2.4
1899	2279	58,410	10,813	3579	-----	1108	632	1740	69,223	15.6	2.5
1900	2364	60,779	11,701	3937	-----	1088	516	1604	72,480	16.1	2.2

WEEKLY HOURS OF LABOR, 1887-1900 STATE OF NEW YORK

Year	NUMBER OF FACTORIES WORKING										
	48 or less		49-54		55-60		61-66		67 or more		Total reported
	No.	%	No.	%	No.	%	No.	%	No.	%	
1887	102	4.8	239	11.2	1,771	82.7	18	0.8	11	0.5	2,141
1888	236	5.1	970	20.8	3,351	72.0	74	1.6	22	0.5	4,653
1889	216	4.3	1065	21.2	3,652	72.6	72	1.4	28	0.6	5,033
1890	295	4.9	1984	17.9	4,407	72.9	206	3.4	51	0.8	6,043
1891	553	5.5	1881	18.8	6,821	68.3	581	5.8	147	1.5	9,983
1892	521	5.5	1304	13.6	6,776	70.9	847	8.9	111	1.2	9,559
1893	596	5.5	1426	13.1	7,827	71.7	917	8.4	145	1.3	10,911
1894	841	6.6	1864	14.6	9,225	72.2	620	4.9	232	1.8	12,782
1895	1328	6.9	3171	16.6	14,180	74.1	269	1.4	194	1.0	10,142
1896	1157	6.1	3724	19.8	13,519	71.8	215	1.1	211	1.1	18,826
1897	1404	9.4	3225	21.6	9,920	66.3	118	0.8	288	1.9	14,955
1898	1574	9.2	3609	21.1	11,367	66.5	158	0.9	380	2.2	17,088
1899	1864	9.3	4049	20.2	13,535	67.4	131	0.7	497	2.5	20,076
1900	1590	7.6	4569	21.7	14,184	67.5	144	0.7	534	2.5	21,021
											Not rep.
											Total
											37
											78
											78
											147
											114
											9,580
											11,038
											12,886
											36
											28
											18,854
											57
											15,012
											11
											17,099
											40
											20,116
											6
											21,027

THE FIRST FACTORY LAW—CHAPTER 409 OF THE LAWS
OF 1886

AN ACT to regulate the employment of women and children in manufacturing establishments, and to provide for the appointment of inspectors to enforce the same.

Passed, May, 18, 1886 ; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. No minor under the age of eighteen years nor any woman under twenty-one years shall be employed at labor in any manufacturing establishment in this State for a longer period than sixty hours in any one week, unless for the purpose of making necessary repairs.

§ 2. No child under thirteen years of age shall be employed in any manufacturing establishment, and every child under sixteen years of age when so employed shall be recorded by name in a book kept for the purpose, and a certificate duly verified by its parent or guardian, or if the child shall have no parent or guardian, then by such child stating age and place of birth of such child, shall be kept on file by the employer, which book and which certificate shall be produced by him or his agent at the requirement of the proper inspector.

§ 3. Every person, firm or corporation employing women under twenty-one years, or minors under eighteen years of age, in any manufacturing establishment, shall post and keep posted in a conspicuous place in every room where such help is employed, a printed notice stating the number of hours per day for each day of the week required of such persons, and in every room where children under sixteen years of age are employed, a list of their names with their age.

§ 4. Any person who knowingly violates or omits to comply with any of the foregoing provisions of this act, or who knowingly employs or suffers or permits any child to be employed in violation of its provisions, shall, on conviction, be punished by a fine of not less than fifty nor more than one hundred dollars, and in default of payment of such fine, by imprisonment for not less than thirty nor more than ninety days.

§ 5. No person or corporation employing less than five persons or children, excepting in any of the cities of this State, shall be deemed a manufacturing establishment within the meaning of this act.

§ 6. The governor shall, immediately after the passage of this act, appoint, with the advice and consent of the senate, a factory inspector, at a salary of two thousand dollars per year, and one assistant at a salary of fifteen hundred dollars per year, whose term of office shall be three years. The said inspector and assistant shall be empowered

to visit and inspect at all reasonable hours, and as often as practicable, the factories, workshops and other establishments in the State where the manufacture of goods is carried on, and to report to the bureau of labor statistics of this State on or before the thirtieth day of November of each year. It shall also be the duties of said inspector to enforce the provisions of this act, and to prosecute all violations of the same before any magistrate or any court of competent jurisdiction in the State.

§ 7. All necessary expenses incurred by said inspectors in the discharge of their duty shall be paid from the funds of the State, upon the presentation of proper vouchers for the same, provided that not more than twenty-five hundred dollars shall be expended by them therefor in any one year.

§ 8. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

§ 9. This act shall take effect on and after the fourth day of July, eighteen hundred and eighty-six.

ANALYSIS OF THE NEW YORK LABOR LAWS¹

The labor law of the state of New York is comprised in Chapter 415 of the Laws of 1897 (approved May 13, 1897, and in effect June 1, 1897), constituting Chapter XXXII of the General Laws, as amended by subsequent legislatures including the Legislature of 1903. This chapter consists of fourteen articles of which the titles are as follows :—

- I. General provisions, (secs. 1-21).
- II. Commissioner of labor statistics, (secs. 30-32).
- III. Public employment bureaus, (secs. 40-43).
- IV. Convict-made goods and duties of commissioner of labor statistics relative thereto, (secs. 50-55).
- V. Factory inspector, assistant and deputies, (secs. 60-67).
- VI. Factories, (secs. 70-93).
- VII. Tenement-made articles, (secs. 100-106).
- VIII. Bakery and confectionery establishments, (secs. 110-115).
- IX. Mines and their inspection, (secs. 120-129).
- X. State board of mediation and arbitration, (secs. 140-149).
- XI. Employment of women and children in mercantile establishments, (secs. 160-173).
- XII. Employment of children in street trades, (secs. 174-179a).
- XIII. Examination and registration of horseshoers, (secs. 180-184).
- XIV. Laws repealed; when to take effect, (secs. 190-191).

This chapter is supplemented by the following sections of the penal code, as amended by Chapter 416 of the Laws of 1897, which relate to violations of the labor law :—

- 384b. Unlawful dealing in convict-made goods.
 - 447a. Negligently furnishing insecure scaffolding.
 - 447c. Neglect to complete or plank floors of buildings constructed in cities.
 - 384f. Failure to furnish statistics to commissioners of labor statistics.
 - 384g. Refusal to admit inspector to mines and quarries; failure to comply with requirements of inspector.
 - 384h. Hours of labor to be required.
 - 384i. Payment of wages.
 - 384j. Failure to furnish seats for female employees.
 - 384k. No fees to be charged for services rendered by free employment bureaus.
 - 384l. Violations of provisions of labor law. (As amended by L. 1903, ch. 380).
 - 384m. Illegal practice of horseshoeing.
- In addition to Chapter 415 of the Laws of 1897, technically known as the "labor law," and the corresponding parts of the penal code,

¹In force October 1, 1903.

as enumerated above, there is a considerable number of other laws affecting more or less directly the special interests of the laboring class and which are therefore included under the labor law in its broadest sense. In the first place, we must include Chapter 9 of the Laws of 1901, which consolidated the formerly existing bureau of labor statistics, office of factory inspector, and board of arbitration into a single department of labor and provided for its organization. The other laws which may properly be included are given in the following list. Of course the selection of this list from all the laws of the state is more or less a matter of judgment, and no two writers will agree on exactly the same list. The selection given here is that of the New York department of labor, and is taken from the nineteenth annual report of the bureau of labor statistics.¹ The same authority is responsible for the classification according to subject matter which has been followed. Following is the list of statutes :-

I. CHILD LABOR

1. Penal code : laws of 1881, ch. 676, sec. 292. (As amended by L. 1884, ch. 46 ; L. 1886, ch. 31 ; L. 1892, ch. 309). *Certain employments of children prohibited.*
2. Laws of 1894, ch. 671 (known as the compulsory education law and constituting Title XVI of the consolidated school law) secs. 3 and 5. (As amended by L. 1896, ch. 606 ; L. 1903, ch. 459). *Educational restriction.*

II. HOURS OF LABOR

1. Laws of 1900, ch. 453. *Drug clerks in New York City.*
2. Laws of 1892, ch. 677. (Being the statutory construction law and constituting Chapter I of the general laws) sec. 24. (As amended by L. 1897, ch. 614 ; L. 1902, ch. 39). *Public holidays and half holidays.*
3. Penal code ; Laws of 1881, ch. 676, secs. 263, 264, 266, and 267. (As amended by L. 1886, ch. 358 ; L. 1885, ch. 519 ; L. 1886, ch. 648 ; L. 1901, ch. 392). *Sunday labor.*
4. Laws of 1895, ch. 823. *Regulating barbering on Sunday.*

III. POLITICAL AND LEGAL RIGHTS AND PRIVILEGES OF WORKINGMEN

1. Laws of 1896, ch. 909. (Being the election law and constituting Chapter VI of the general laws) sec. 109. *Allowing time for employees to vote without loss of pay.*
2. Penal code : Laws of 1881, ch. 676, sec. 41 a. (As amended by L. 1892, ch. 693 ; L. 1894, ch. 714 ; L. 1901, ch. 371). *Preventing employers from coercing employees in their exercise of the suffrage.*
3. Code of civil procedure, Chapter 13, Title 2, Article 1, secs. 1390 and 1391. (As amended by L. 1879, ch. 542 ; L. 1891, ch. 112 ; L.

¹ N. Y. bur. labor stat. 1901, Part II, pp. 1-128.

- 1901, ch. 116 ; L. 1903, ch. 461). *Exempting workmen's tools, etc., from attachment for debt.*
4. Code of civil procedure, Chapter 15, Title 4, Article 1, sec. 1879. (Judgment creditor's action). *Exempting wages of workmen from attachment for debt.*
 5. Laws of 1877, ch. 466. (Being the general assignment act) sec. 29. (As amended by L. 1884, ch. 328 ; L. 1886, ch. 283 ; L. 1897, ch. 266 and ch. 624). *Making employees preferred creditors.*
 6. Laws of 1892, ch. 688. (Being the stock corporation law, and constituting Chapter XXXVI of the general laws) secs. 54 and 55. (As amended by L. 1901, ch. 354). *Liability of stockholders for wage debts.*
 7. Laws of 1890, ch. 565. (Being the railroad law, and constituting Chapter XXXIX of the general laws) sec. 30. *Liability of railroad corporations to employees of contractors for wage debts.*
 8. Laws of 1902, ch. 580, secs. 44, 274, 340, and 348. *Securing the payment of wages in New York City.*
 9. Laws of 1897, ch. 418. *The lien law.* (As amended).
 10. Penal code : Laws of 1881, ch. 676, secs. 171b and 171c. (As added by L. 1903, ch. 349). *Penalty for discriminating against national guardsmen.*

IV. PUBLIC WORK

1. Laws of 1899, ch. 370, (Being the civil service law, and constituting Chapter III of the general laws), sec. 17. *Registration of laborers for municipal employment*, and sec. 20. *Preference allowed veterans in public employment.*
2. Laws of 1897, ch. 444. *Prohibiting the sub-letting of public contracts.*
3. Laws of 1894, ch. 338, (Being the canal law, and consisting Chapter XIII, (XII) of the general laws), sec. 135. *Securing the payment of wages to employees of contractors upon canals.*
4. Laws of 1902, ch. 588. *Authorizing the eight-hour day upon reservoir construction in New York City.*

V. PRISON LABOR

1. Constitution of New York, Article III, sec. 29. *The state use system established.*
2. Revised statutes, Part 4, Chapter 3, Title 2, (As amended) secs. 98, 103, 105, and 107, (As amended by L. 1896, ch. 429 ; L. 1897, ch. 623 ; L. 1901, ch. 418). *The state use system established.*
3. Laws of 1898, ch. 645. *Restriction upon printing industry in prisons.*
4. Laws of 1894, ch. 266. (As amended by L. 1894, ch. 664). *High-way improvement by convict labor.*
5. Laws of 1892, ch. 686. (Being the county law, and constituting Chapter XVIII of the general laws), sec. 93. (As amended by L. 1896, ch. 826). *Employment of prisoners in county jails.*

6. Laws of 1901, ch. 466. (The New York charter), secs. 700, 701, 702. *Employment of prisoners in New York penal institutions.*

VI. INDUSTRIAL EDUCATION

1. Laws of 1896, ch. 272. (Being the domestic relations law, and constituting Chapter XLVIII of the general laws). Art. VII. (As amended by L. 1899, ch. 448. *Providing for the indenturing of apprentices.*
2. Code of criminal procedure: Laws of 1881, ch. 272, Title IX. secs. 927-938. (As amended by L. 1895, ch. 880). *Of procedure respecting masters, apprentices, and servants.*
3. Laws of 1894, ch. 556. (Being the consolidated school law). Title 15, Art. 10, secs. 25-27. *Industrial training in the public schools.*
4. Laws of 1888, ch. 545 (As amended by L. 1889, ch. 383; L. 1890, ch. 305; L. 1891, ch. 71). *Free lectures for working people.*
5. Laws of 1897, ch. 97. *Free lectures for working people.*
6. Laws of 1899, ch. 489. *Free lectures for working people.*
7. Laws of 1892, ch. 685. (Being the general municipal law, and constituting Chapter XVII of the general laws) sec. 24, (As amended by L. 1896, ch. 576). *Free public libraries.*
8. Laws of 1892, ch. 378. (The university law) secs. 36, 37, and 50, (As amended by L. 1895, ch. 859; L. 1902, ch. 185; L. 1900, ch. 481). *Free public libraries.*

VII. LICENSING OF TRADES¹

1. Laws of 1900, ch. 327. (Being the general city law, and constituting Chapter XXII of the general laws) Art. III. *Examination and licensing of plumbers in cities.*
2. Laws of 1896, ch. 803. *Examination and licensing of plumbers in New York City.*
3. Laws of 1901, ch. 466. (Being the revised charter of greater New York), secs. 342, and 343. *Inspection of steam boilers and licensing of steam engineers in New York City.*
4. Laws of 1897, ch. 635. Amending sec. 312 of the New York City consolidation act—Laws of 1882, ch. 410). As amended by L. 1900, ch. 461 and ch. 709). *Inspection of steam boilers and licensing of steam engineers in New York City.*
5. Laws of 1901, ch. 733. *Licensing of stationary fireman in New York City.*
6. Laws of 1890, ch. 565. (Being the railroad law, and constituting Chapter XXXIX of the general laws) sec. 42. (As amended by L. 1895, ch. 513). *Defining the qualifications of street railway conductors, motormen, etc.*
7. Penal code: Laws of 1881, ch. 676, sec. 418. (As amended by L. 1895, ch. 892). *Qualification of engineers and telegraphers.*
8. Laws of 1893, ch. 661. (Being the public health law, and constitu-

¹The only local laws included under this heading are those applying to New York City.

ing Chapter XXV of the general laws). Art. XII. (As added by L. 1903, ch. 293). *Examination and registration of nurses.*

9. Laws of 1903, ch. 632. *Regulating the practice of barbering.*

VIII. TRADE UNIONS

1. Laws of 1895, ch. 559. (Being the membership corporation law, and constituting Chapter XLIII of the general laws), secs. 30 and 31. (As amended by L. 1897, ch. 205; L. 1901, ch. 436). *Authorizing the incorporation of labor organizations.*
2. Laws of 1896, ch. 377. (Being the benevolent orders law, and constituting Chapter XLIV of the general laws), sec. 7. (As amended by L. 1898, ch. 46 and ch. 464; L. 1902, ch. 390). *Authorizing labor organizations to maintain or construct buildings, halls, or libraries for their use.*
3. Laws of 1898, ch. 671. *Preventing fraudulent representation in labor organizations.*
4. Penal code: Laws of 1881, ch. 676, sec. 171a. (As amended by L. 1887, ch. 688). *Unlawful to compel employees to agree not to join labor organizations.*

IX. INDUSTRIAL DISPUTES

1. Penal code: Laws of 1881, ch. 676, secs. 168, 169, 170, 653, 673 and 675. (As amended by L. 1891, ch. 327). *Illegal combinations, coercion, etc.*
2. Penal code: Laws of 1881, ch. 676, sec. 119. (As amended by L. 1892, ch. 272). *The "Anti-Pinkerton" Act: Prohibiting the appointment of non-residents as special officers to preserve the public peace.*
3. Laws of 1890, ch. 365. (Being the railroad law, and constituting Chapter XXXIX of the general laws), sec. 58. (As amended by L. 1899, ch. 539). *Conductors and trainmen as policemen.*

X. MISCELLANEOUS ACTS

1. Laws of 1902, ch. 600. *The employer's liability law.*
2. Laws of 1881, ch. 419. *Duties of employees.*
3. Laws of 1888, ch. 410. (As amended by L. 1891, ch. 330). *Intelligence offices and employment agencies in New York City.*
4. Laws of 1891, ch. 185. *Intelligence offices and employment agencies in Brooklyn.*
5. Laws of 1882, ch. 410. (The New York City consolidation act), secs. 2069-2084. *Protection of sailors.*
6. Laws of 1893, ch. 543. (As amended by L. 1896, ch. 486; L. 1900, ch. 549). *Compelling equipment of engines and freight trains with air brakes.*
7. Laws of 1893, ch. 544. (As amended by L. 1896, ch. 485). *Compelling equipment of freight cars with automatic couplers.*
8. Laws of 1890, ch. 565. (Being the railroad law, and constituting Chapter XXXIX of the general laws), secs. III and IIIA. (As added by L. 1903, ch. 325, and ch. 426). *Requiring the enclosure of platforms on street cars.*

THE FACTORY LAW

[Chapter 415 of the Laws of 1897, constituting Chapter XXXII of the General Laws.]

Article I. General provisions. (§§ 1-21.)

- II. Commissioner of labor statistics. (§§ 30-32.)
- III. Public employment bureaus. (§§ 40-43.)
- IV. Convict-made goods and duties of commissioner of labor statistics relative thereto. (§§ 50-55.)
- V. Factory inspector, assistant and deputies. (§§ 60-67.)
- VI. Factories. (§§ 70-93.)
- VII. Tenement made articles. (§§ 100-106.)
- VIII. Bakery and confectionery establishments. (§§ 110-115.)
- IX. Mines and their inspection. (§§ 120-129.)
- X. State board of meditation and arbitration. (§§ 140-149.)
- XI. Employment of women and children in mercantile establishments. (§§ 160-173.)
- XII. Employment of children in street trades. (§§ 174-179a.)
- XIII. Examination and registration of horseshoers. (§§ 180-184.)
- XIV. Laws repealed; when to take effect. (§§ 190-191.)

ARTICLE V

Factory Inspector, Assistant and Deputies

Section 60. Factory inspector and assistant.*

- 61. Deputies and clerks.
- 62. General powers and duties of factory inspector.
- 63. Reports.
- 64. Badges.
- 65. Payment of salaries and expenses.
- 66. Sub-office in New York City.
- 67. Duties of factory inspector relative to apprentices.

Section 61. Deputies and clerks.—The factory inspector may appoint from time to time, not more than fifty persons as deputy factory inspectors, not more than ten of whom shall be women, and who may be removed by him at any time. Each deputy inspector shall receive an annual salary of one thousand two hundred dollars. The factory inspector may designate six or more of such deputies to inspect the buildings and rooms occupied and used as bakeries and to enforce the provisions of this chapter relating to the manufacture of flour or meal food products. One of such deputies shall have a know-

*Office of factory inspector was abolished by L. 1901, ch. 9, and the functions thereof imposed upon, the commissioner of labor.

ledge of mining, whose duty it shall be, under the direction of the factory inspector, to inspect mines and quarries and to enforce the provisions of this chapter relating thereto. The factory inspector may appoint one or more of such deputies to act as clerk in his principal office. [*As amended by L. 1899, ch. 192.*]

§ 62. **General powers and duties of factory inspector.**—The factory inspector may divide the state into districts, assign one or more deputy inspectors to each district, and may in his discretion, transfer them from one district to another.

The factory inspector shall visit and inspect, or cause to be visited and inspected, the factories, during reasonable hours, as often as practicable, and shall cause the provisions of this chapter to be enforced therein and prosecute all persons violating the same.

Any lawful municipal ordinance, by-law or regulation relating to factories or their inspection, in addition to the provisions of this chapter and not in conflict therewith, shall be observed and enforced by the factory inspector.

The factory inspector, assistant and each deputy may administer oaths and take affidavits in matters relating to the enforcement of the provisions of this chapter.

No person shall interfere with, obstruct or hinder, by force or otherwise, the factory inspector, assistant factory inspector or deputies while in the performance of their duties, or refuse to properly answer questions asked by such officers pertaining to the provisions of this chapter.

All notices, orders and directions of assistants or deputy factory inspectors given in accordance with this chapter are subject to the approval of the factory inspector.

§ 63. **Reports.**—The factory inspector shall report annually to the legislature in the month of January. The assistant factory inspector and each deputy shall report to the factory inspector, from time to time, as he may require.

§ 64. **Badges.**—The factory inspector may procure and cause to be used, badges for himself, his assistant and deputies, while in the performance of their duties, the cost of which shall be a charge upon the appropriation made for the use of the department.

§ 65. **Payment of salaries and expenses.**—All necessary expenses incurred by the factory inspector in the discharge of his duties, shall be paid by the state treasurer upon the warrant of the comptroller, issued upon proper vouchers therefor. The reasonable necessary traveling and other expenses of the assistant factory inspector and deputy factory inspectors, while engaged in the performance of their duties, shall be paid in like manner upon vouchers approved by the factory inspector and audited by the comptroller. All such expenses and the salaries of the factory inspector, assistant and deputies shall be payable monthly. [*As amended by L. 1899, ch. 192.*]

§ 66. **Sub-office in New York city.**—The factory inspector may establish and maintain a sub-office in the city of New York, if, in his opinion, the duties of his office demand it. He may designate one or more of the deputy factory inspectors to take charge of and manage such office, subject to his direction. The reasonable and necessary expenses of such office shall be paid, as are other expenses of the factory inspector.

§ 67. **Duties of factory inspector relative to apprentices.**—The factory inspector, his assistant and deputies shall enforce the provisions of the domestic relations law, relative to indentures of apprentices, and prosecute employers for failure to comply with the provisions of such indentures and of such law in relation thereto.

ARTICLE VI

Factories

Section 70. Employment of minors.*

71. Certificate for employment, how issued.
72. Contents of certificate.
73. School attendance required.
- [74. Vacation certificates. *Repealed.*]
75. Report of certificates issued.
76. Registry of children employed.
77. Hours of labor of minors and women.
78. Change of hours of labor of minors and women.
79. Enclosure and operation of elevators and hoisting shafts ; inspection.
80. Stairs and doors.
81. Protection of employees operating machinery.
82. Fire escapes.
83. Factory inspector may order erection of fire escapes.
84. Walls and ceilings.
85. Size of rooms.
86. Ventilation.
87. Accidents to be reported.
88. Wash-room and water-closets.
89. Time allowed for meals.
90. Inspection of factory buildings.
91. Inspection of boilers in factories.
92. Laundries.
93. Employment of women and children at polishing or buffing.

§ 70. **Employment of minors.**—No child under the age of fourteen years shall be employed, permitted or suffered to work in or in

* Chap. 184 of the Laws of 1903, which amends the sections of this article relating to the employment of children, takes effect October 1, 1903. Section 4 thereof reads as follows :

§ 4. The word custodian as used in this act shall include any person, organization or society having the custody of said child.

connection with any factory in this state. No child between the ages of fourteen and sixteen years shall be so employed, permitted or suffered to work unless an employment certificate issued as provided in this article shall have been theretofore filed in the office of the employer at the place of employment of such child. [*As amended by L. 1903, ch. 184.*]

§ 71. **Employment certificate how issued.**—Such certificate shall be issued by the commissioner of health or the executive officer of the board or department of health of the city, town or village where such child resides, or is to be employed, or by such other officer thereof as may be designated by such board, department or commissioner for that purpose, upon the application of the parent or guardian or custodian of the child desiring such employment. Such officer shall not issue such certificate until he has received, examined, approved, and filed the following papers duly executed: (1) The school record of such child properly filled out and signed as provided in this article. (2) A passport or duly attested transcript of the certificate of birth or baptism or other religious record, showing the date and place of birth of such child. A duly attested transcript of the birth certificate filed according to law with a registrar of vital statistics, or other officer charged with the duty of recording births, shall be conclusive evidence of the age of such child. (3) The affidavit of the parent or guardian or custodian of a child, which shall be required, however, only in case such last mentioned transcript of the certificate of birth be not produced and filed, showing the place and date of birth of such child; which affidavit must be taken before the officer issuing the employment certificate, who is hereby authorized and required to administer such oath, and who shall not demand or receive a fee therefor. Such employment certificate shall not be issued until such child farther has personally appeared before and been examined by the officer issuing the certificate, and until such officer shall, after making such examination, sign and file in his office a statement that the child can read and legibly write simple sentences in the English language and that in his opinion the child is fourteen years of age or upwards and has reached the normal development of a child of its age, and is in sound health and is physically able to perform the work which it intends to do. In doubtful cases such physical fitness shall be determined by a medical officer of the board or department of health. Every such employment certificate shall be signed, in the presence of the officer issuing the same, by the child in whose name it is issued. [*As amended by L. 1903, ch. 184.*]

§ 72. **Contents of certificate.**—Such certificate shall state the date and place of birth of the child, and describe the color of the hair and eyes, the height and weight and any distinguishing facial marks of such child, and that the papers required by the preceding section have been duly examined, approved and filed and that the child

named in such certificate has appeared before the officer signing the certificate and been examined. [*As amended by L. 1903, ch. 184.*]

§ 73. **School record, what to contain.**—The school record required by this article shall be signed by the principal or chief executive officer of the school which such child has attended and shall be furnished, on demand, to a child entitled thereto or to the board, department or commissioner of health. It shall contain a statement certifying that the child has regularly attended the public schools or schools equivalent thereto or parochial schools for not less than one hundred and thirty days during the school year previous to his arriving at the age of fourteen years or during the year previous to applying for such school record and is able to read and write simple sentences in the English language, and has received during such period instruction in reading, spelling, writing, English grammar and geography and is familiar with the fundamental operations of arithmetic up to and including fractions. Such school record shall also give the age and residence of the child as shown on the records of the school and the name of its parent or guardian or custodian. [*As amended by L. 1903, ch. 184.*]

§ 75. **Report of certificates issued.**—The board or department of health or health commissioner of a city, village or town, shall transmit, between the first and tenth day of each month, to the office of the factory inspector a list of the names of the children to whom certificates have been issued.

§ 76. **Registry of children employed.**—Each person owning or operating a factory and employing children therein shall keep, or cause to be kept in the office of such factory, a register, in which shall be recorded the name, birthplace, age and place of residence of all children so employed under the age of sixteen years. Such register and the certificate filed in such office shall be produced for inspection, upon the demand of the commissioner of labor. On termination of the employment of a child so registered, and whose certificate is so filed, such certificate shall be forthwith surrendered by the employer to the child or its parent or guardian or custodian. [*As amended by L. 1903, ch. 184.*]

§ 77. **Hours of labor of minors and women.**—No minor under the age of sixteen years shall be employed, permitted or suffered to work in any factory in this state before six o'clock in the morning, or after nine o'clock in the evening of any day, or for more than nine hours in any one day. No minor under the age of eighteen years, and no female shall be employed, permitted or suffered to work in any factory in this state before six o'clock in the morning, or after nine o'clock in the evening of any day; or for more than ten hours in any one day, except to make a shorter work day on the last day of the week; or for more than sixty hours in any one week, or more hours in any one week than will make an average of ten hours per day for the whole number of days so worked. A printed notice, in a form which shall

be prescribed and furnished by the commissioner of labor, stating the number of hours per day for each day of the week required of such persons, and the time when such work shall begin and end, shall be kept posted in a conspicuous place in each room where they are employed. But such persons may begin their work after the time for beginning and stop before the time for ending such work, mentioned in such notice, but they shall not otherwise be employed, permitted or suffered to work in such factory except as stated therein. The terms of such notice shall not be changed after the beginning of labor on the first day of the week without the consent of the commissioner of labor. The presence of such persons at work in the factory at any other hours than those stated in the printed notice shall constitute prima facie evidence of a violation of this section of the law. [*As amended by L. 1899, ch. 192, and L. 1903, ch. 184.*]

§ 78. **Change of hours of labor of minors and women.**—When in order to make a shorter work day on the last day of the week, a minor over sixteen and under eighteen years of age, or a female sixteen years of age or upwards, is to be required or permitted to work in a factory more than ten hours in a day, the employer of such person shall notify the commissioner of labor in writing, of such intention, stating the number of hours of labor per day, which it is proposed to require or permit, and the time when it is proposed to cease such requirement or permission; a similar notification shall be made when such requirement or permission has actually ceased. A record of the names of the employees thus required or permitted to work overtime, with the amount of such overtime, and the days upon which such work was performed, shall be kept in the office of such factory, and produced upon the demand of the commissioner of labor. [*As amended by L. 1899, ch. 192, and L. 1903, ch. 184.*]

§ 79. **Enclosure and operation of elevators and hoisting shafts; inspection.**—If, in the opinion of the factory inspector, it is necessary to protect the life or limbs of factory employees, the owner, agent or lessee of such factory where an elevator, hoisting shafts, or well hole is used, shall cause, upon written notice from the factory inspector, the same to be properly and substantially enclosed, secured or guarded, and shall provide such proper traps or automatic doors so fastened in or at all elevator ways, except passenger elevators enclosed on all sides, as to form a substantial surface when closed and so constructed as to open and close by action of the elevator in its passage either ascending or descending. The factory inspector may inspect the cable, gearing or other apparatus of elevators in factories and require them to be kept in a safe condition.

No child under the age of fifteen years shall be employed or permitted to have the care, custody or management of or to operate an elevator in a factory, nor shall any person under the age of eighteen years be employed or permitted to have the care, custody or manage-

ment of or to operate an elevator therein running at a speed of over two hundred feet a minute.

§ 80. **Stairs and doors.**—Proper and substantial hand rails shall be provided on all stairways in factories. The steps of such stairs shall be covered with rubber, securely fastened thereon, if in the opinion of the factory inspector the safety of the employees would be promoted thereby. The stairs shall be properly screened at the sides and bottom. All doors leading in or to any such factory shall be so constructed as to open outwardly where practicable; and shall not be locked, bolted or fastened during working hours.

§ 81. **Protection of employees operating machinery.**—The owner or person in charge of a factory where machinery is used, shall provide, in the discretion of the factory inspector, belt shifters or other mechanical contrivances for the purpose of throwing on or off belts on pulleys. Whenever practicable, all machinery shall be provided with loose pulleys. All vats, pans, saws, planers, cogs, gearing, belting, shafting, set screws and machinery, of every description, shall be properly guarded. No person shall remove or make ineffective any safeguard around or attached to machinery, vats, or pans, while the same are in use, unless for the purpose of immediately making repairs thereto, and all such safeguards so removed shall be promptly replaced. Exhaust fans of sufficient power shall be provided for the purpose of carrying off dust from emery wheels, grind stones and other machinery creating dust. If a machine or any part thereof is in a dangerous condition or is not properly guarded, the use thereof may be prohibited by the factory inspector, and a notice to that effect shall be attached thereto. Such notice shall not be removed until the machine is made safe and the required safeguards are provided, and in the meantime such unsafe or dangerous machinery shall not be used. When, in the opinion of the factory inspector, it is necessary the workrooms, halls and stairs leading to workrooms shall be properly lighted. Such lights to be independent of the motive power of such factory. No male person under eighteen years or woman under twenty-one years of age shall be permitted or directed to clean machinery while in motion. Children under 16 years of age shall not be permitted to operate or assist in operating dangerous machines of any kind. [*As amended by L. 1899, ch. 192.*]

§ 82. **Fire escapes.**—Such fire escapes as may be deemed necessary by the factory inspector shall be provided on the outside of every factory in this state consisting of three or more stories in height. Each escape shall connect with each floor above the first, and shall be of sufficient strength, well fastened and secured, and shall have landings or balconies not less than six feet in length and three feet in width, guarded by iron railings not less than three feet in height, embracing at least two windows at each story and connected with the interior by easily accessible and unobstructed openings. The balconies or land-

ings shall be connected by iron stairs, not less than eighteen inches wide, with steps not less than six inches tread, placed at a proper slant and protected by a well-secured hand-rail on both sides, and shall have a drop ladder not less than twelve inches wide reaching from the lower platform to the ground.

The windows or doors to the landing or balcony of each fire escape shall be of sufficient size and located as far as possible, consistent with accessibility, from the stairways and elevator hatchways or openings, and a ladder from such fire escape shall extend to the roof. Stationary stairs or ladders shall be provided on the inside of every factory from the upper story to the roof, as a means of escape in case of fire.

§ 83. **Factory inspector may order erection of fire escapes.**—Any other plan or style of fire escape shall be sufficient if approved in writing by the factory inspector. If there is no fire escape, or the fire escape in use is not approved by the factory inspector, he may, by a written order served upon the owner, proprietor or lessee of any factory, or the agent or superintendent thereof, or either of them, require one or more fire escapes to be provided therefor, at such locations and of such plan and style as shall be specified in such order. Within twenty days after the service of such order, the number of fire escapes required therein, shall be provided, each of which shall be of the plan and style specified in the order, or of the plan and style described in the preceding section.

§ 84. **Walls and ceilings.**—The walls and ceilings of each work room in a factory shall be lime washed or painted when, in the opinion of the factory inspector, it will be conducive to the health or cleanliness of the persons working therein.

§ 85. **Size of rooms.**—No more employees shall be required or permitted to work in a room in a factory between the hours of six o'clock in the morning and six o'clock in the evening than will allow to each of such employes not less than two hundred and fifty cubic feet of air space; and, unless by a written permit of the factory inspector, not less than four hundred cubic feet for each employee, so employed between the hours of six o'clock in the evening and six o'clock in the morning, provided such room is lighted by electricity at all times during such hours, while persons are employed therein.

§ 86. **Ventilation.**—The owner, agent or lessee of a factory shall provide, in each work-room thereof, proper and sufficient means of ventilation; in case of failure the factory inspector shall order such ventilation to be provided. Such owner, agent or lessee shall provide such ventilation within twenty days after the service upon him of such order, and in case of failure, shall forfeit to the people of the state, ten dollars for each day after the expiration of such twenty days, to be recovered by the factory inspector, in his name of office.

§ 87. **Accidents to be reported.**—The person in charge of any factory shall report in writing to the factory inspector all accidents or injuries sustained by any person therein, within forty-eight hours after

the time of the accident, stating as fully as possible the extent and cause of the injury, and the place where the injured person has been sent, with such other information relative thereto as may be required by the factory inspector who may investigate the cause of such accident, and require such precautions to be taken as will, in his judgment, prevent the recurrence of similar accidents.

§ 88. **Wash-room and water-closets.**—Every factory shall contain a suitable, convenient and separate water-closet or water-closets for each sex, which shall be properly screened, ventilated, and kept clean and free from all obscene writing or marking; and also, a suitable and convenient wash-room. The water-closets used by women shall have separate approaches. Inside closets shall be maintained whenever practicable and in all cases when required by the commissioner of labor. When women or girls are employed, a dressing-room shall be provided for them, when required by the commissioner of labor. [*As amended by L. 1901, ch. 306.*]

§ 89. **Time allowed for meals.**—In each factory at least sixty minutes shall be allowed for the noon-day meal, unless the factory inspector shall permit a shorter time. Such permit must be in writing and conspicuously posted in the main entrance of the factory, and may be revoked at any time. Where employees are required or permitted to work overtime for more than one hour after six o'clock in the evening, they shall be allowed at least twenty minutes to obtain a lunch, before beginning to work overtime.

§ 90. **Inspection of factory buildings.**—The factory inspector, or other competent person designated by him, upon request, shall examine any factory outside of the cities of New York and Brooklyn, to determine whether it is in a safe condition. If it appears to him to be unsafe, he shall immediately notify the owner, agent or lessee thereof specifying the defects, and require such repairs and improvements to be made as he may deem necessary. If the owner, agent or lessee shall fail to comply with such requirement, he shall forfeit to the people of the state the sum of fifty dollars, to be recovered by the factory inspector in his name of office.

§ 91. **Inspection of boilers in factories.**—All boilers used for generating steam or heat for factory purposes shall be kept in good order, and the owner, agent, manager or lessee of such factory shall have such boilers inspected by a competent person approved by the factory inspector, once in six months, and shall file a certificate showing the results thereof in such factory office, and a duplicate thereof in the office of the factory inspector. Each boiler or nest of boilers used for generating steam or heat for factory purposes shall be provided with a proper safety-valve, and with steam and water gauges, to show respectively, the pressure of steam and the height of water in the boilers. Every boiler house in which a boiler or nest of boilers is placed, shall be provided with a steam gauge properly connected with the boilers, and another steam gauge shall be attached to the steam

pipe in the engine house, and so placed that the engineer or fireman can readily ascertain the pressure carried. Nothing in this section shall apply to boilers in factories which are regularly inspected by competent inspectors acting under the authority of local laws or ordinances. [*Added by L. 1899, ch. 192.*]

§ 92. **Laundries.**—A shop, room or building where one or more persons are employed in doing public laundry work by way of trade or for purposes of gain is a factory within the meaning of this chapter, and shall be subject to the visitation and inspection of the factory inspector, and the provisions of this chapter in the same manner as any other factory. No such public laundry work shall be done in a room used for a sleeping or living room. All such laundries shall be kept in a clean condition and free from vermin and all impurities of an infectious or contagious nature. This section shall not apply to any female engaged in doing custom laundry work at her home for a regular family trade. [*Added by L. 1901, ch. 477.*]

§ 93. **Employment of women and children at polishing or buffing.**—No male child under the age of eighteen years, nor any female, shall be employed in any factory in this state in operating or using any emery, tripoli, rouge, corundum, stone, carborundum or any abrasive, or emery polishing or buffing wheel, where articles of the baser metals or of iridium are manufactured. The owner, agent or lessee of a factory who employs any such person in the performance of such work is guilty of a misdemeanor and upon conviction thereof shall be fined the sum of fifty dollars for each such violation. The commissioner of labor, his assistants and deputies, shall enforce the provisions of this section. [*Added by L. 1899, ch. 375; renumbered by L. 1901, ch. 478,; amended and renumbered by L. 1903, ch. 561*]

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LIST OF DOCTORAL DISSERTATIONS IN POLITICAL ECONOMY IN PROGRESS IN AMERICAN UNIVERSITIES AND COLLEGES ON JANUARY 1, 1905.

NOTE.—The appended list has been compiled from responses received to a circular of inquiry addressed by the Publication Committee to all institutions represented in the Council of the American Economic Association. Students not in actual residence are distinguished by an asterisk [*]. Students whose period of continuous non-residence exceeds three years are omitted from the list.

BRYN MAWR.

ELLEN DEBORAH ELLIS, A.B., Bryn Mawr College, 1901; A.M., same, 1901. Introduction to the study of sugar as a commodity. May, 1901.

BROWN.

JESSIE WILSON, Ph.B., Brown, 1898; A.M., Brown, 1899. The history of Rhode Island, 1760-1783.

COLORADO.

JAMES WILLIAM ELLISON, A.B., University of Denver, 1902; A.M., same, 1903. Financial history of Colorado. 1906.

COLUMBIA.

JIROSHI ABURATANI, A.B., Doshisha College, Japan, 1892. The evolution of the family, marriage and divorce in Japan since the feudal period. 1905.

EUGENE A. AGGER, A.B., University of Cincinnati, 1901; A.M., 1902. American state and local budgets. 1905-6.

ENOCH M. BANKS, A.B., Emory College, 1897; A.M., same, 1900. The economics of land tenure. Thesis in Press.

A. BERGLUND, A.B., University of Chicago, 1904. Steel and iron associations. 1905-6.

NORRIS A. BRISCO, A.B., Queen's University, 1898; A.M., same, 1901. The place of Walpole in Economics. 1906.

*FREDERIC M. DAVENPORT, A.B., Wesleyan, 1889. The social phenomena of religious revivals. Published in 1905.

MICHAEL M. DAVIS, A.B., Columbia, 1900. The sociological theories of Gabriel Tarde. 1906.

ALLEN BARBER EATON, Ph.B., Beloit College, 1899; A.M., Yale, 1902. Minor Political Parties in the United States. 1905.

R. L. FOUCHT, A.B., Butler College, 1903. Employers' associations.

JOHN LEWIS GILLIN, A.B., Iowa College, 1895; A.M., Columbia, 1903. The Dunkers in Europe and in America.

G. G. GROAT, A.B., Syracuse University; Ph.D., State Normal College; A.M., Cornell University. The history of labor legislation and the labor movement in the United States. In press.

WILLIAM BUCK GUTHRIE, A.B., Lenox, 1893; Ph.B., State University of Iowa, 1895. Pre-revolutionary socialism. 1905.

FRANK HAMILTON HANKINS, A.B., Baker University, 1901. Quetelet. 1906.

*WARREN L. HOAGLAND, A.B., Wesleyan, 1898; A.M., Columbia, 1900. The history of the New Jersey poor laws.

M. JACOBSTEIN, A.B., Columbia, 1904. Tobacco culture and tobacco industry in the United States. 1905-1906.

SAMUEL L. JOSHI, A.B., Madras University. The economic history of India.

PAUL U. KELLOGG, Time and piece wages in the iron industry.

*ROYAL MEEKER, A.B., Iowa State University, 1898. Shipping subsidies. Finished. To be printed in 1905.

- WALLACE E. MILLER, A.B., Ohio Wesleyan, 1897. The peopling of Kansas.
- THOMAS B. MOORE, A.B., Dutch State College, 1901. The hemp industry in the United States. In press.
- *HENRY R. MUSKEY, A.B., Beloit 1900. The iron ore production in the United States. In press.
- E. H. OLIVER, A.B., University of Toronto, 1902; A.M., 1903. The economic history of Rome up to the time of the Empire.
- ROBERT B. OLSEN, A.B., Whitman College, 1900; A.M., Columbia, 1901. The relation of local to general finance.
- *COMADORE EDWARD PRENEY, B.S., Wisconsin, 1895; A.M., Columbia, 1899. Economic bearings of American agriculture.
- *BERTHA HAVEN PUTNAM, A.B., Bryn Mawr, 1893. The enforcing of the statutes of laborers in England, 1349-1360. 1905-1906.
- GUY E. SNIDER, B.L., University of Wisconsin, 1901, and A.M., 1902. Railway taxation. 1905-1906.
- *EVERETT B. STACKPOLE, W.B., Bowdoin College, 1900; A.M., Columbia, 1902. Reciprocity with the South American Republics.
- CHARLES E. STANGELAND, A.B., Augsburg Theological Seminary, 1898; A.M., University of Minnesota, 1901. Pre-Malthusian theories of population. Published 1905.
- *ALVAN ALONZO TENNEY, A.B., Columbia, 1898, and A.M., 1899. History of the charity organization movement.
- EDWIN S. TODD, A.B., Wittenburg, 1893, and Ph.D., 1901. A social study of Clark county, Ohio. Printed in 1905.
- D. D. WING, B.S., Mass. Inst., of Technology, 1898. History of the greenback movement in Maine.

CORNELL.

- *ROBERT CLARKSON BROOKS, A.B., Indiana University, 1896. History of the street and rapid transit railways in New York City. Thesis completed. To be published in 1905.
- *WILLARD EUGENE HOTCHKISS, Ph.B., Cornell, '97; A.M., '03. The judicial work of the comptroller of the treasury as compared with similar functions in the governments of France and Germany; a study in administrative law. 1905.
- EMANUEL ALEXANDER GOLDENWEISER, A.B., Columbia, 1903. Russian Immigration to the United States.
- GEORGE DAVID HUBBARD, B.S., M.S., A.M.. The geographic influence of the precious metals in the development of the United States.
- *EDWIN WALTER KEMMERER, A.B., Wesleyan University, 1899. Money and credit instruments in relation to general prices. Thesis completed. To be published in 1905.
- CHARLES CLIFFORD HUNTINGTON, B.Ph., Ohio State University, 1902. A.M., same, 1903. The development of business organization in Ohio. To be completed 1906.
- ALBERT CHARLES MUHSE, A.B., Indiana University, '01; A.M., '02. The justification of taxation in relation to economic and political science. 1905.
- EARL WINTON PETTIBONE, A.B., Oberlin College, 1901. Coöperation among farmers in marketing produce.
- GEORGE PENDLETON WATKINS, A.B., Cornell, 1899. The analysis of utility; a contribution to the theory of economic consumption.

HARVARD.

- DWIGHT ST. JOHN BOBB, A.M., Harvard, '00; LL.B., Harvard, '03. Determination of rates.
- VANDEVEER CUSTIS, A.M., Harvard, '02. The theory of industrial consolidation. June, '05.
- STUART DAGGETT, A.B., Harvard, '03. Railroad reorganization. June, '05.
- EMERSON DAVID FITE, A.B., Yale, '97. The Economic history of the United States during the Civil War. June, '05.

- JOSEPH CLARENCE HEMMEON, A. M., Harvard, '04. The limits of State interference. June, '06.
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- LINCOLN HUTCHINSON, A.M., Harvard, '99. Ten years' competition (1894-1903) for markets in Brazil, Argentina, Uruguay and Paraguay." Now complete.
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- HORACE HENRY MORSE, A.M., Harvard, '01. The history of the trade of the British East India Company beyond the Straits of Malacca to 1617. June, '06.
- WILLIAM HYDE PRICE, A.M., Harvard, '02. The English patents of monopoly, 1550-1650. June, '05.
- SIMMON E. THOMAS, A.M., University of Iowa, '01. Commercial relations between the United States and Great Britain, 1807-1812.
- ALBERT BENEDICT WOLFE, A.M., Harvard, '03. The lodging house problem in Boston, with some reference to other cities. Now complete.
- CHESTER WHITNEY WRIGHT, A.M., Harvard, '02. The wool industry in the United States. June, '06.
- JOHN DANIELS, A.M., Harvard, '04. The negro in Boston. A study of the influence of environment on heredity.

JOHNS HOPKINS.

- GÖSTA ADOLFSSON BAGGE, Filosofie Kandidat, Royal University of Upsala, 1904. Trade unionism in Sweden.
- SOLOMON BLUM, A.B., Johns Hopkins University, 1903. The shop regulations of American trade unions.
- WILLIAM H. BUCKLER, A.B., University of Cambridge, 1890, and LL.B., 1891. Trade unionism and the standard wage.
- THEODORE W. GLOCKER, A.B., Johns Hopkins University, 1903. The structure of American trade unions.
- *HUGH S. HANNA, A.B., Johns Hopkins University, 1899. The financial history of Maryland.
- FREDERICK W. HILBERT, A.B., Randolph-Macon College, 1896, and A.M., 1897. Trade agreements in the United States.
- JAMES B. KENNEDY, A.B., Brakine College, 1892. The beneficiary features of American Trade unions.
- WILLIAM KIRK, A.B., Johns Hopkins University, 1902. Labor federations in the United States.
- JAMES M. MOTLEY, A.B., William Jewell College, 1901. The apprentice and American trade unions.
- AARON M. SAKOLSKI, Ph.D., Syracuse University, 1902. The finances of American trade unions.
- *MARK O. SHRIVER, Jr., A.B., Loyola College, 1902. The oyster industry in Maryland.
- *V. EDGEWORTH SMITH, A.B., Johns Hopkins University, 1898. The consular system of the United States.

MISSOURI.

- REDMOND S. COLE. A study in history of banking in Missouri.

NEBRASKA.

- REV. EDWIN HELLABY WILLISFORD, A.B., Hilldale College, '96; B.D., '98; A.M., '99. The social history of wealth. Due 1906.
- MRS. MINNIE TROOP ENGLAND, B.Sc., Nebraska Wesleyan University, '03. Forms of church government in relation to religious and social progress. Due 1906.
- W. H. ENGLAND, B.S., Nebraska Wesleyan University. Recent Government finances in their bearing on prosperity. To be completed in 1906.

NORTHWESTERN UNIVERSITY.

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